

# Public Utilities

Volume 56 No. 7



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September 29, 1955

GREETINGS • ATA ANNUAL CONVENTION •  
SEPTEMBER 26-29, 1955

« »  
**Transit Isn't That "Sick"**  
By Donald C. Hyde

« »  
**Transit Helps to Save Downtown Business**  
By George W. Keith

« »  
**Economics of the Transit Operating Ratio**  
By Charles W. Knapp

« »  
**A Pattern of Co-ordination, Transit—Traffic**  
By Gerald J. Glassman

« »  
**Correcting the Mental Approach to Transit Cure**

« »  
**Addresses on Public Utility Problems—Public Utility  
Law Section—American Bar Association—  
Appendix**

# There's No Substitute for Creosoted Wood Products...

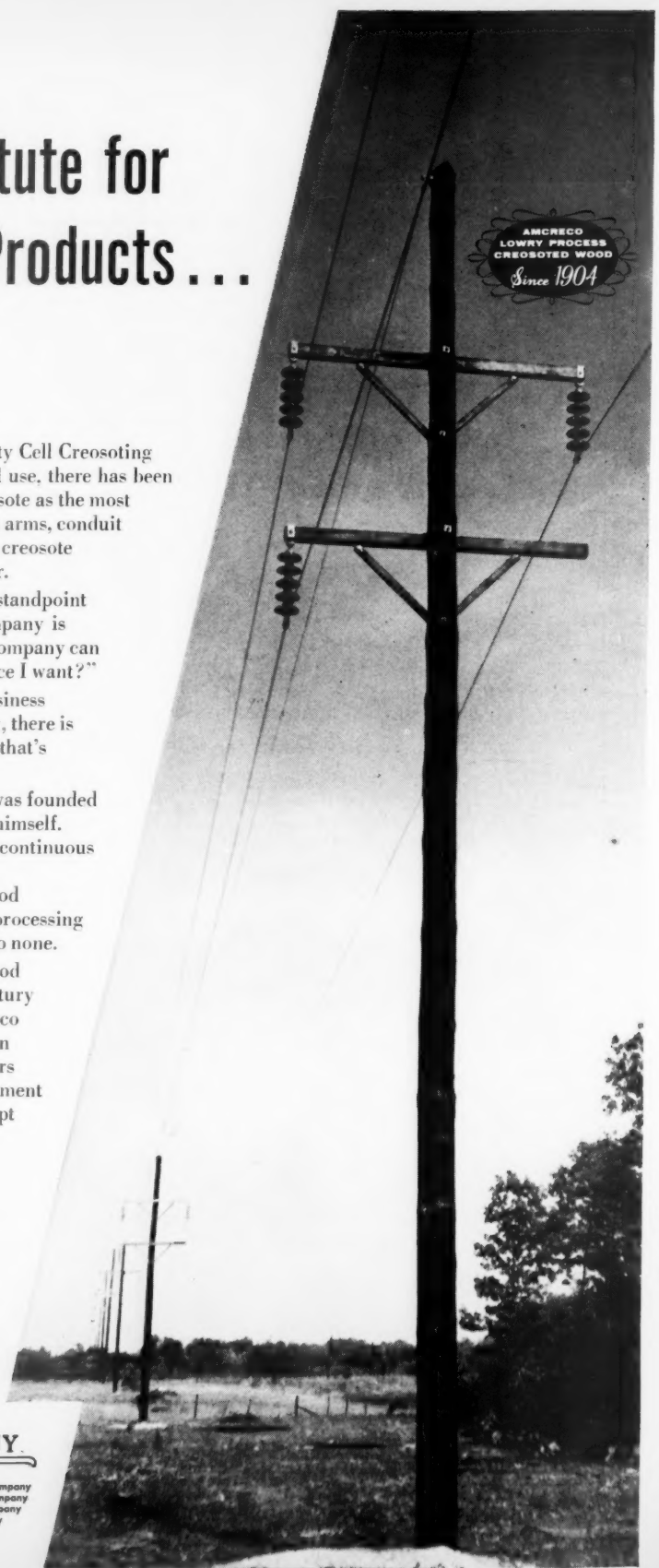
Ever since 1905, when the Lowry Empty Cell Creosoting Process was introduced for commercial use, there has been no question as to the supremacy of creosote as the most effective wood preservative. Poles, cross arms, conduit and other construction woods treated in creosote have proved their value many times over.

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# Public Utilities

## FORTNIGHTLY

VOLUME 56

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The pictures below show significant steps in the shop fabrication and assembly of B&W's Universal Pressure Steam Generator for Philo Plant.

# B&W Universal



Assembly, complete and ready for shipment, of the second pass side wall is about 55 feet long, 5 feet, 6 inches wide. Alloy tubes are strength welded into the headers.



An intricate job of banding, studding, and nesting characterizes the screen and floor for the secondary front wall.



Shop assembly of secondary front wall. Note assembly frame which was made of plates and pipes welded together, but was not attached physically to the tube assembly at any point.



Floor tubes for secondary front wall assembly are carefully inspected for correct alignment.



Support castings being welded on flexible, small diameter tubes for roof assembly. Note that each tube end has a steel plug in it for cleanliness and future hydrostatic tests.



Secondary front wall section of alloy tubes and headers on its way to be completely stress relieved after assembly.

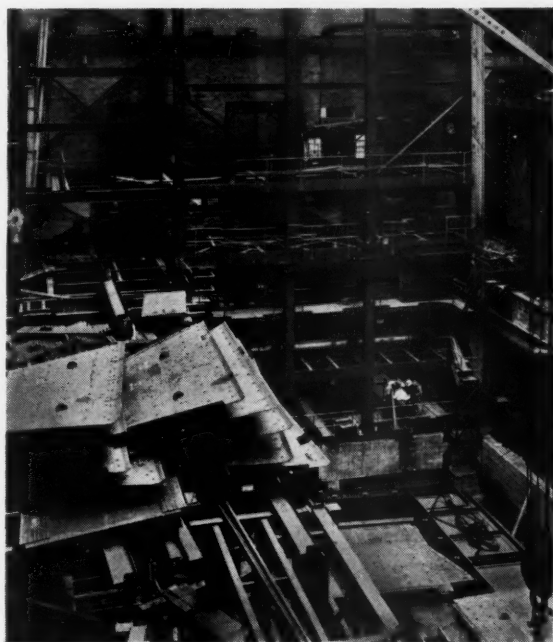
# Pressure Steam Generator erection begins at Philo Plant

Final field erection has started on the world's first commercial supercritical pressure steam generator. At the Philo Plant of the Ohio Power Company, on the American Gas and Electric System, shop-assembled components of B&W's Universal Pressure Steam Generator are now being erected. It will supply steam at 4500 psi, 1150 F to a 125,000-kw turbine, and there will be two stages of reheat. Expected net heat rate is 8500 Btu per kilowatt hour.

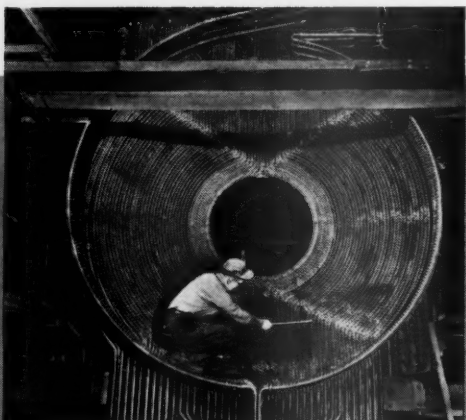
The complete installation at Philo Plant represents a new break-through in steam electric generating efficiency. In the words of Phillip Sporn, President of American Gas and Electric Service Corp.:

"The Philo project reflects the outstandingly dynamic character of the electric power industry. Here, in the very important field of energy generation, new frontiers are being pushed forward. Here, new avenues of approach to improvement in capital costs, in efficiency and in operating costs, are being opened. And, in keeping with the tradition that has characterized the growth and development of the industry, the results of this pioneering achievement will be made available to the rest of the industry.

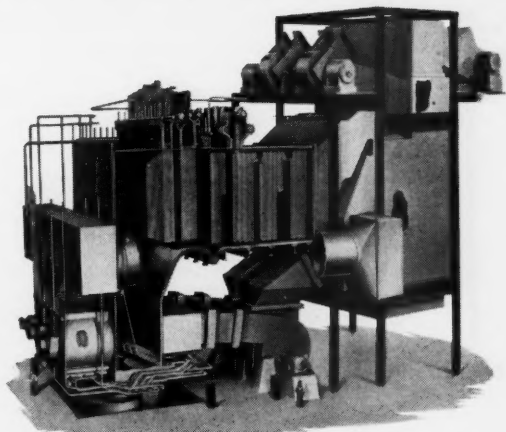
"The electric power industry, far from challenging any particular method of generating energy, demonstrates by this Philo project its readiness to adopt and bring forward every new development that can advance its technical and economic well being."



Start of boiler erection at Ohio Power Company's Philo Plant.



Assembly of Cyclone Furnace pressure parts. The unit for Philo Plant will have three such furnaces.



Sectional View of B&W Universal Pressure Steam Generator.

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G-730

# Pages with the Editors

**I**N this issue we salute the American Transit Association—one of our great utility industry groups—on the occasion of its annual convention in Boston, Massachusetts, September 26th-29th. As in virtually every other year during the past two decades, transit men have plenty of real problems to talk about at the Boston meeting.

Also, as in former years, the transit men are probably just a little tired of hearing their business referred to as a "sick" industry. It goes without saying that transit business continues to face a critical stage of existence. But it is an industry with a long and proud tradition of public service. It has faced problems before and it has found the answers.

Probably the most reassuring factor in the transit business is a general acceptance of the fact that the country cannot get along without it. Indeed, it is becoming more apparent that, with the steady migration of city dwellers to suburbs and to satellite cities, the actual need for necessary mass transportation will become more pressing with each passing year.

In other words, it is not the transit industry, per se, which is sick, but rather

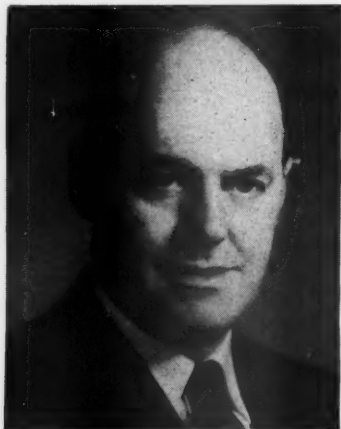


CHARLES W. KNAPP

the confused and sometimes contradictory and shortsighted approach made by responsible authorities to the question of how the admittedly necessary transit industry can best be retained on an efficient and profitable basis.

The opening article in this issue is written by the president of the American Transit Association, under the provocative title "Transit Isn't *That* 'Sick'." It is a comprehensive and thoughtful statement about economic and regulatory developments in the transit industry over the past year. Faced with a decline in patronage, the industry is left with no alternative but to impress upon the public the fact that passengers will eventually have to write their own ticket as to whether they want adequate service and are willing to pay for it.

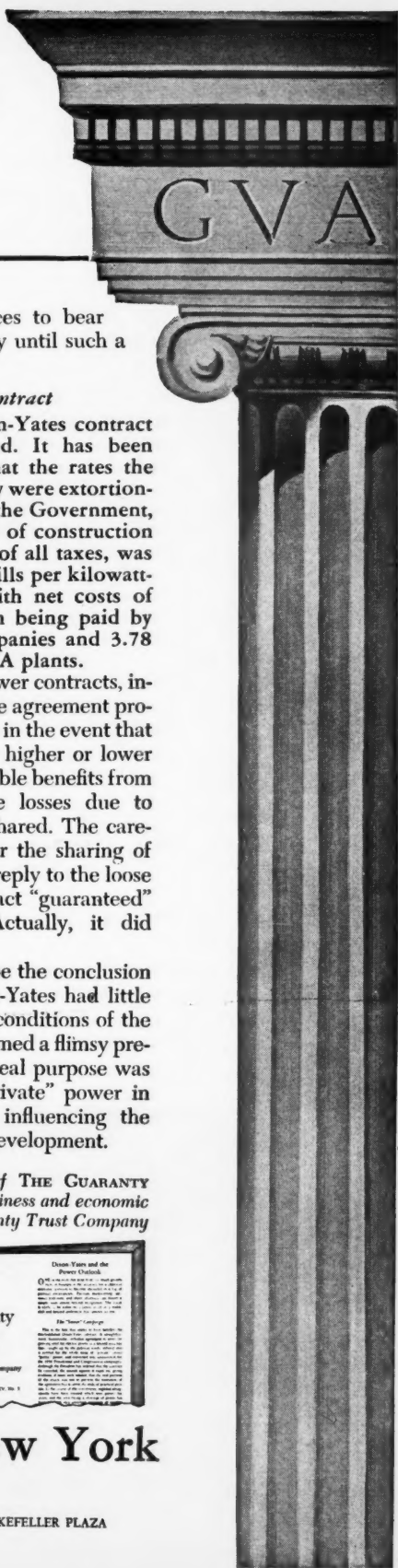
The author of this article, DONALD C. HYDE, has been active in public transit for more than twenty-six years. For more than eight of these years he has been general manager of the Cleveland Transit System. Prior to that he was associated with the transit system in Milwaukee for fifteen years. He has played an active part in Cleveland Transit's \$20,000,000 modernization program and in the large-scale



DONALD C. HYDE



# Dixon-Yates and the Power Outlook



One of the evils that arise from too much government in business is the tendency for a clear-cut economic question to become shrouded in a fog of political irrelevancies. The result is likely to be either no solution at all or a makeshift and belated settlement that satisfies no one.

## *The "Smear" Campaign*

This is the fate that seems to have befallen the much-debated Dixon-Yates contract. A straightforward, businesslike, orthodox agreement to meet the growing need for power in a limited area has been inflated into a symbol for the whole issue of "private" versus "public" power.

Now that the contract is in process of being canceled and is presumably dead, its merit or lack of merit as a fair business proposition is no longer important in itself. What is important at present is the continuing effort to use it as a means of discrediting the whole principle of power development by private enterprise.

It has been charged that the whole transaction was a plot to scuttle the Tennessee Valley Authority. Actually, there was nothing in the contract to injure TVA or curtail its activities. The alleged plot to scuttle TVA boils down to the fact that Congress refused to appropriate funds for TVA's program to expand its steam generating capacity, and the Administration, in line with its clearly stated policy, proceeded to arrange for AEC's additional power requirements.

It has also been complained that no competitive bids were sought. The fact is that competitive bidding is usually not practicable in connection with contracts of this type and hence that established precedent is on the side of negotiated agreements. A power company selling electricity under contract to a single buyer with the right of cancellation must have (1) a strong prospect of finding an alternative market for the power within a reasonable period and

(2) the financial resources to bear the cost of excess capacity until such a market is found.

## *Terms of the Contract*

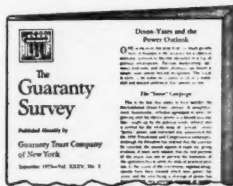
The terms of the Dixon-Yates contract also have been criticized. It has been charged, for example, that the rates the Government agreed to pay were extortionate. Actually, the cost to the Government, based on estimated costs of construction and operation, exclusive of all taxes, was figured by AEC at 3.55 mills per kilowatt-hour. This compared with net costs of 3.79 and 3.86 mills then being paid by AEC to two private companies and 3.78 and 3.83 mills to two TVA plants.

Like most long-term power contracts, including TVA contracts, the agreement provided for rate adjustments in the event that actual costs proved to be higher or lower than estimated costs. Possible benefits from lower costs and possible losses due to higher costs were to be shared. The carefully drawn provisions for the sharing of risks stand out sharply in reply to the loose allegations that the contract "guaranteed" the company's profit. Actually, it did nothing of the kind.

It is impossible to escape the conclusion that the assault on Dixon-Yates had little to do with the terms and conditions of the contract. These merely formed a flimsy pretext for an attack whose real purpose was to throw discredit on "private" power in general with a view to influencing the future course of power development.

*From the September issue of THE GUARANTY SURVEY, monthly review of business and economic conditions published by Guaranty Trust Company of New York.*

*The complete issue is available on request to our Main Office, 140 Broadway, New York 15, N. Y.*



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## PAGES WITH THE EDITORS (Continued)

development of express bus service in that city, which recently celebrated the opening of a \$30,000,000 rapid transit system. MR. HYDE was honored in February, 1952, as one of the eleven outstanding Clevelanders of that year who helped make greater Cleveland a better place to live and work.

\* \* \* \*

**G**EORGE W. KEITH, professional writer of Cincinnati, has covered a rather novel but important angle of modern transit operations — the need for saving downtown business (beginning on page 457). This, of course, is everybody's job who has a stake in downtown business, including the learned professions—medicine, law, dentistry—with modern emphasis on specialization.

\* \* \* \*

**C**HARLES W. KNAPP, an accounting consultant of West Hartford, Connecticut, whose article begins on page 467, has made a study of the ways and means whereby regulatory authorities can liberalize operating ratio techniques which will encourage and assist transit operations, while at the same time fulfilling their responsibility as public regulators.

MR. KNAPP, who joined the staff of Arthur Andersen & Co. in 1930, was an accounting assistant on the staff of the FCC during its investigation of the Bell telephone system in 1935. He recently joined the staff of the FPC and engaged in the preparation of studies and in appearances

as a witness for the commission on rate of return matters—including both the controversial Hope Natural Gas Case and the Natural Gas Pipeline Company of America Case.

RECENTLY MR. KNAPP had the satisfaction of seeing his recommendations put into practice by the city of Springfield, Massachusetts. He had suggested to the city that it refrain from opposing a requested fare increase by the Springfield State Railroad Company, pointing out that the company's operating ratio would yield a fair return even after the proposed increase. The city adopted MR. KNAPP's recommendations and he had the opportunity of defending them as the city's witness before the Massachusetts Department of Public Utilities.

\* \* \* \*

**I**T is generally thought that steps can be made in a modest and orderly way to put pressure on drivers of private cars so as to prevent them from leaving them downtown. GERALD J. GLASSMAN, economist with the transportation and public utilities branch of OPA during World War II, and more recently consultant with the public utilities division of the Treasury Department, has tackled this knotty problem in an article (beginning on page 480), which is well worthy of consideration, even though it might also provoke dissent in some quarters.

\* \* \* \*

**N**OT only legal, but atomic, economic, and financial problems of operating public utilities engaged the attention of the Section of Public Utility Law of the American Bar Association. The appendix published with this issue, contains the texts of the various addresses given at the sessions of the annual meeting of the Section of Public Utility Law during the American Bar Association convention at The Barclay hotel, in Philadelphia, Pennsylvania, August 22nd, 23rd, and 24th.

THE next number of this magazine will be out October 13th.

*The Editors*



GERALD J. GLASSMAN



*Working side of a 3-section counter*

## How Cashiering AND Bookkeeping are combined in this 3-Clerk Counter...

*...for working efficiency,  
good public relations  
and space-saving*

The three complete work stations making up this counter are Remington Rand's new sectional Customer Service Counter units.

Unlike custom-built counters, this sectional counter unit, which accommodates all facilities and records for a cashiering and bookkeeping station, offers complete flexibility. Here, three of the units are combined. These sections may be moved and adapted to a new location, or for larger quarters, a new section may be added. Whatever the number of clerk-stations you may require, this unit provides the highest degree of efficiency in the smallest amount of space.

Its appearance is open and friendly. The clerk *always* faces the customer — ready to serve... has complete facilities within arm's reach. No time is wasted walking from bookkeeping desk to customer. It eliminates working at a desk with back to customer — the "extra" desk is eliminated! Customers are served more promptly, efficiently and courteously.

There's a continuous parcel shelf, encouraging customers to step aside so that the next in line may be served.

The clerk works comfortably seated at her desk, ending the usual "standing" counter cashiering, with the fatigue and errors which are bound to result.

**For The Small Office**, it's most economical and efficient to combine cashiering and bookkeeping by use of a single unit. This one-section counter reduces costs by centralizing all customer contacts and records within reach of one clerk. Record forms of any size may be housed... even a typewriter pedestal may be included.

**For Fire Protection**, desk-height, *certified*, insulated units are available to protect counter-stored vital records, 24 hours a day, at point-of-use.

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# Coming IN THE NEXT ISSUE



## **OPTIMISM IS THE GAS INDUSTRY'S KEYNOTE**

The gas industry is quite optimistic about its ability to serve most efficiently the growing number of customers. More than that, the industry is preparing an aggressive program of promotion for new business and expansion of old business in various appliances and service fields. F. M. Banks, president of the American Gas Association, as well as of the Southern California Gas Company, gives us an inspiring message about the new optimism of a great American utility industry.

## **FEDERAL REGULATION OF INDEPENDENT NATURAL GAS PRODUCERS IS ESSENTIAL**

The scholarly but hard-hitting U. S. Senator from Illinois, Paul H. Douglas, was among the first to speak out in opposition to the proposed legislation by his congressional colleagues from the southwestern states to exempt independent gas producers from the general jurisdiction of the FPC. Senator Douglas has become the focal point of the so-called "consumers' bloc" in Congress, now preparing to fight adoption of the House-approved Harris Bill at the next session. This article gives his reasons.

## **NATURAL GAS IS STILL THE BEST BUY**

In the heat of the controversy over political, legislative, and regulatory arguments involving the gas industry, we sometimes may be tempted to overlook the basic economics of America's most popular heating fuel. W. Larry Shoemaker, vice president of the Northern Natural Gas Company, gives us a practical, down-to-earth explanation of why, when all is said and done, natural gas is still "the best buy." He further tells why it will probably continue in that favorite category for the consumers for the indefinite future.

## **GAS: THE NATION'S YOUNGEST OLD INDUSTRY**

The natural gas industry, which already has converted most of the nation to the "wonder fuel" and has sold its way into a solid position as the nation's sixth largest industry, is setting new sales records through the development of new products and processes for home and industry. This is the story told by W. F. Rockwell, Jr., president of the Rockwell Manufacturing Company and of the Gas Appliance Manufacturers' Association.

## **"AIR CONDITIONING" IS BIGGER THAN WE THINK**

The gas industry is going out after the gas air-conditioning load—a rich prize now largely held by the electric industry. It is coveted especially because of its summer seasonal balancing feature against high winter peaks which plague the gas utilities even more than the electric companies. James H. Collins, California author of business articles, has checked with current developments in the gas industry, looking towards the attraction of air-conditioning business in the future.



**Also . . . Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.**

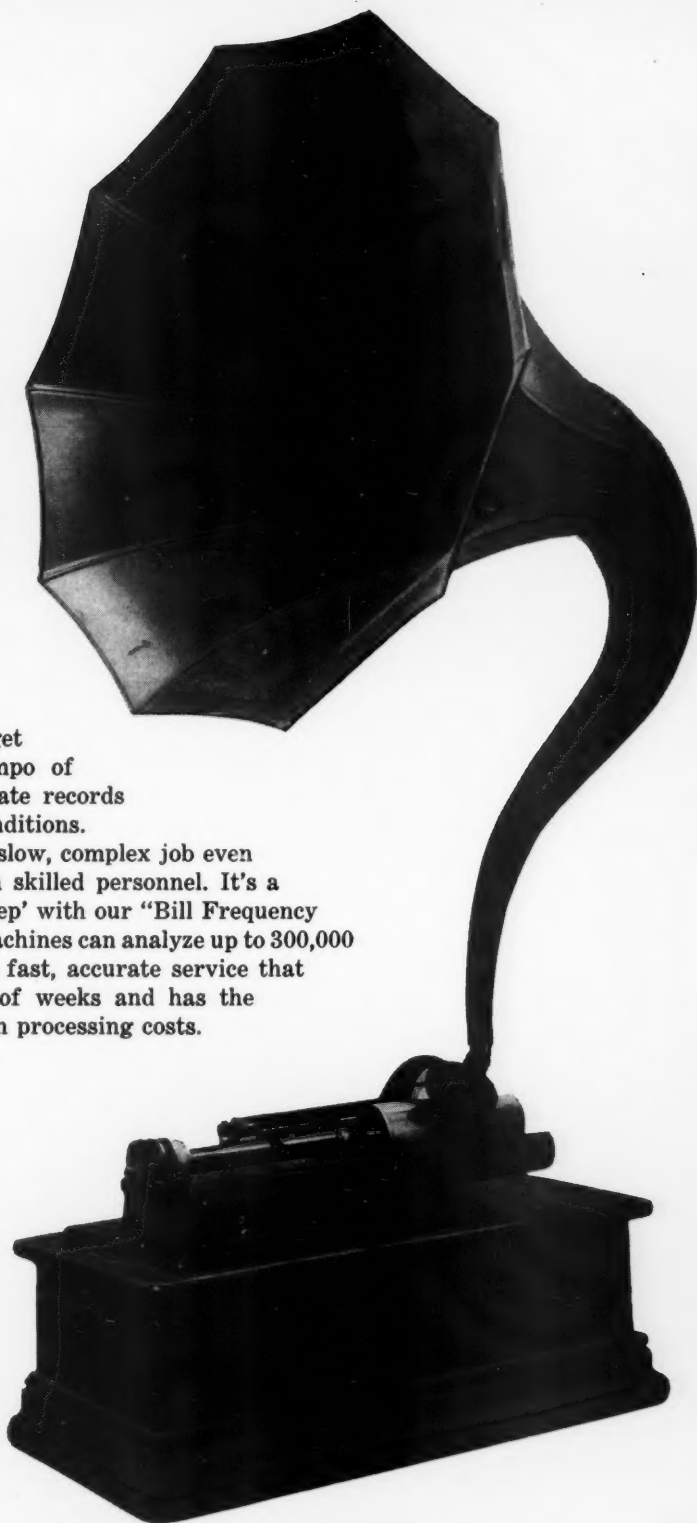
## Wind Instrument

It only played one record at a time, which had to be changed by hand and you had to wind it after every tune. This "music by muscle" machine was the marvel of its day but now it is a museum piece.

Hand compiled figures too often are "museum pieces" by the time you get them, they just can't meet the tempo of modern business that requires accurate records in a hurry to meet fast changing conditions. Case in point . . . rate analyses. It's a slow, complex job even when a utility company uses its own skilled personnel. It's a fast, simple job performed in 'One Step' with our "Bill Frequency Analyzer", because just one of these machines can analyze up to 300,000 bills in a *single* day. Investigate this fast, accurate service that gives you analyses in days instead of weeks and has the collateral benefit of saving you 50% in processing costs. *There is no obligation for estimates.*



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# Remarkable Remarks

*"There never was in the world two opinions alike."*

—MONTAIGNE

RALPH J. CORDINER  
*President, General Electric  
Company.*

"Our electric power capacity will have to be doubled within the next eight years, in our opinion."

EDITORIAL STATEMENT  
*The Wall Street Journal.*

"It is, perhaps, a harsh thing to say, but it is true that many men want good husbandry in government for everyone but themselves."

LESTER L. COLBERT  
*President, Chrysler Corporation.*

"But there need not be anything like a serious and prolonged depression if competitive business continues to do its work in the atmosphere of confidence."

H. ROWAN GAITHER, JR.  
*President, Ford Foundation.*

"The increased willingness of corporate donors to support educational activities not directly related to the corporations' business interests is particularly encouraging."

W. STERLING COLE  
*U. S. Representative from  
New York.*

"It is now clear that atomic power is technically feasible, and the only real question remaining is that of how soon it will be competitive with electricity from conventional fuels. Here in the United States where electricity is now for the most part cheap, the transition from conventional power to atomic power will be relatively slow."

L. M. CASSIDY  
*Chairman of the board,  
Johns-Manville Corporation.*

"We are on the threshold of an age when the great thoroughways, the express highways will radically and fundamentally remake America. Just as the building of the railroads in another era gave the stimulus to our economy so, too, great express highways across the country will create new industries, new housing projects, and other developments."

HUDSON R. SEARING  
*President, Consolidated Edison  
Company of New York, Inc.*

"... if the present inflationary trend continues, it is hard to see where further improvements in technology could make more than a dent in the increasingly higher costs of these fuels. Nuclear fuel is something entirely new and I think it is a fair assumption that, over the years, costs will trend downward rather than upward. That is our basic approach to the economics of the matters."

WARREN K. LEWIS  
*Professor emeritus, Massachusetts  
Institute of Technology.*

"The technological problems are capable of successful solution [to prompt commercial use of atomic power]. The main problem is cost. Astronomical amounts of power have been released by atomic developments, but at the moment knowledge is lacking and a completely new technology must be developed to put it to use. It is difficult to estimate the [speed of] the development of atomic energy as an important commercial source."



## Here's Proof of Performance...

# 302 pressure-creosoted poles installed in 1928 ... only one replacement due to pole failure

CENTRAL HUDSON GAS & ELECTRIC CORPORATION, serving the Mid-Hudson Valley, with General Offices at Poughkeepsie, N. Y., has more than 100,000 pressure-creosoted poles in its system. The company began using pressure-creosoted yellow pine poles in 1926, one of the first lines to be built being the River Transmission Line from Highland to Newburgh, a distance of approximately 16 miles.

This line was installed in 1928 and 1929, using 302 40'-60' poles. To date, ten poles have been replaced, but only one due to wood failure. Boring tests made recently show the poles are still extremely sound.

In specifying poles, it will pay you to follow this utility's example and rely on Creosote's unmatched records of service. And when you do, be sure your poles are pressure-treated with uniform USS Creosote. Its deep penetration, retention and high toxicity assure you maximum pole life. For complete information, contact our nearest Coal Chemical sales office, or write directly to United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pa.

See "THE UNITED STATES STEEL HOUR"—Televised alternate weeks—Consult your local newspaper for time and station.



1929 dating nails on this pole are evidence of the long, economical life of pressure-creosoted poles.



John J. Sotanski, Central Hudson Estimator, inspects pressure-creosoted poles in the company's River Line which have been in the ground more than a quarter century and are still sound, according to recent boring tests.

# USS CREOSOTE

SALES OFFICES IN PITTSBURGH, NEW YORK, CHICAGO, CLEVELAND, SAN FRANCISCO AND FAIRFIELD, ALA.



UNITED STATES STEEL



This machinist is "miking" a disc for one of the largest butterfly valves ever built — 192" diameter. Newport News built 3 such valves, each weighing 446,000 lbs., for the Ross Power Plant, Skagit Project, Department of Light, City of Seattle, Washington. Designed for a water flow of 3,620 cu. ft. per sec., and a hydrostatic pressure of 290 psi., these valves were shop tested by Newport News at 450 psi. They are hydraulically operated with oil at 1,500 psi. pressure.

## Birth of a **200-ton** Butterfly

This disc for a 16-foot butterfly valve reflects two basic advantages of Newport News fabrication...

First, it exemplifies the *careful attention* Newport News craftsmen give to every detail. And secondly, it attests to the *quality* with which Newport News produces in massive equipment for public utilities and allied industries...due to Newport News' high integration of skill and production facilities.

Additional advantages accrue to customers from extensive work conducted in Newport News' testing laboratories on problems related to water power equipment.

Avail yourself of the engineering talent, along with the specialized production techniques and the skill of Newport News craftsmen operating vast steel fabricating shops, five huge machine shops, drop forging and die facilities along with acres of brass, iron and steel foundries.

Let us bid on equipment for your present or future projects. If you are not familiar with the way Newport News can help you, write for our illustrated booklet entitled "Water Power Equipment" ...it's yours for the asking.

### **NEWPORT NEWS**

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*Newport News, Virginia*

# BEFORE YOU BREAK GROUND

Construction of a new plant starts when the steam shovel takes its first bite of earth. But the actual building process begins *before* you break ground.

It begins when the need for new plant facilities is recognized and engineers are called into action. Then it develops on the drawing board—through plant layouts, working drawings, engineering specifications. It requires consideration of engineering and production techniques—analysis of all factors that must be taken into account before construction can start.

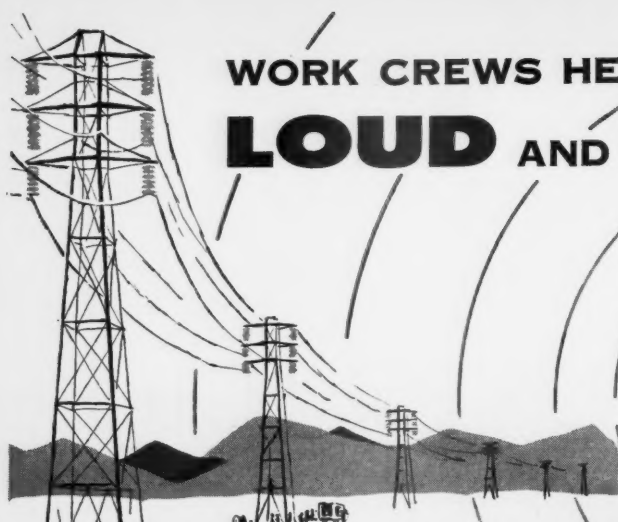
Ebasco skilled engineers and constructors have experience in every phase of the building process—from preliminary planning right up to a plant's successful operation. This experience has enabled Ebasco to complete more than two billion dollars' worth of new plant design and construction for many industries, in many parts of the world.

The engineering and construction firm you select to design and build your plant may well hold the key to its future success. If *you* are considering such a project, send for our booklet, "The Inside Story of Outside Help." It describes our engineering and construction services as well as the wide range of consulting services Ebasco offers business and industry. Write: Ebasco Services Incorporated, Two Rector Street, New York 6, N. Y.



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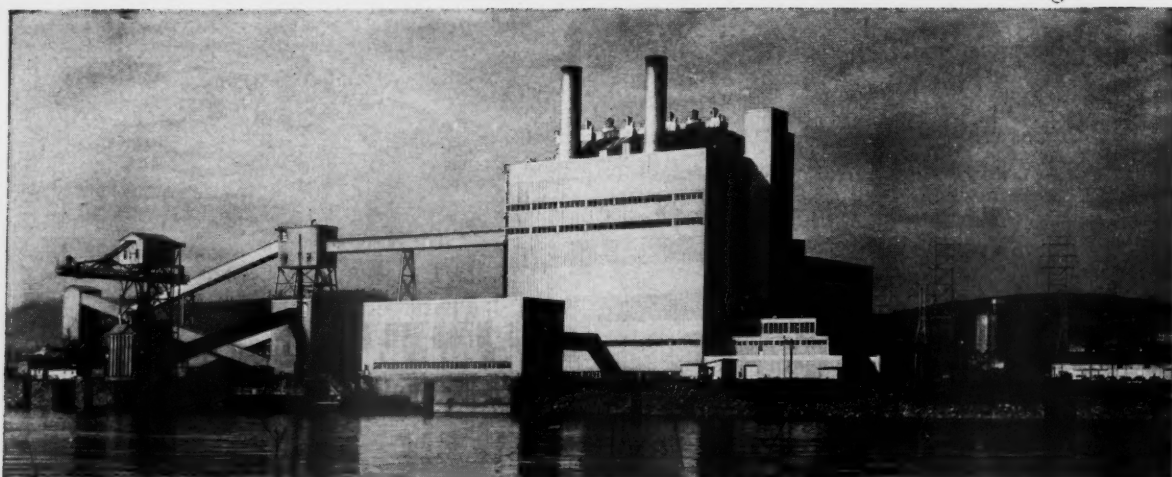
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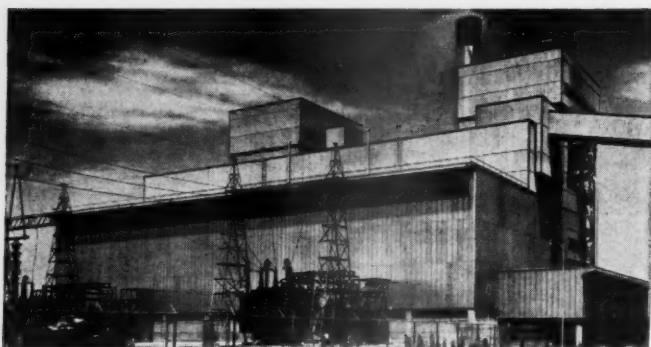
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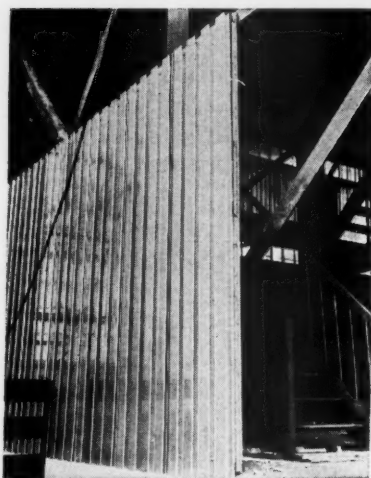
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PUBLIC UTILITIES FORTNIGHTLY—SEPTEMBER 29, 1955

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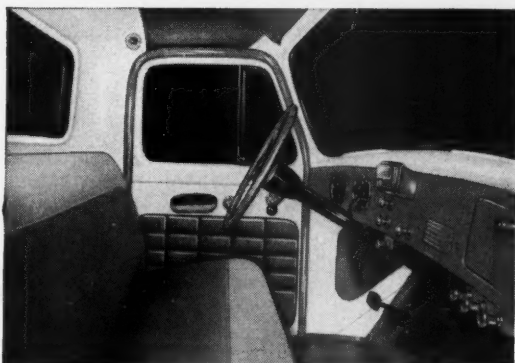
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# COMPANY

# FUSES

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## How S&C Power Fuses Are Used in the 69 Kv and 115 Kv System Protection Schemes

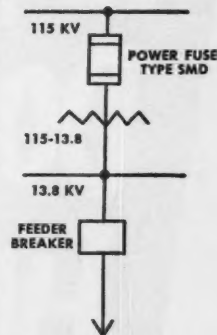
The transmission lines of Florida Power & Light Company are tapped at intervals to feed distribution substations. As was originally planned, the power transformers were not always provided with primary protection against secondary faults since primary breakers could not be economically justified.

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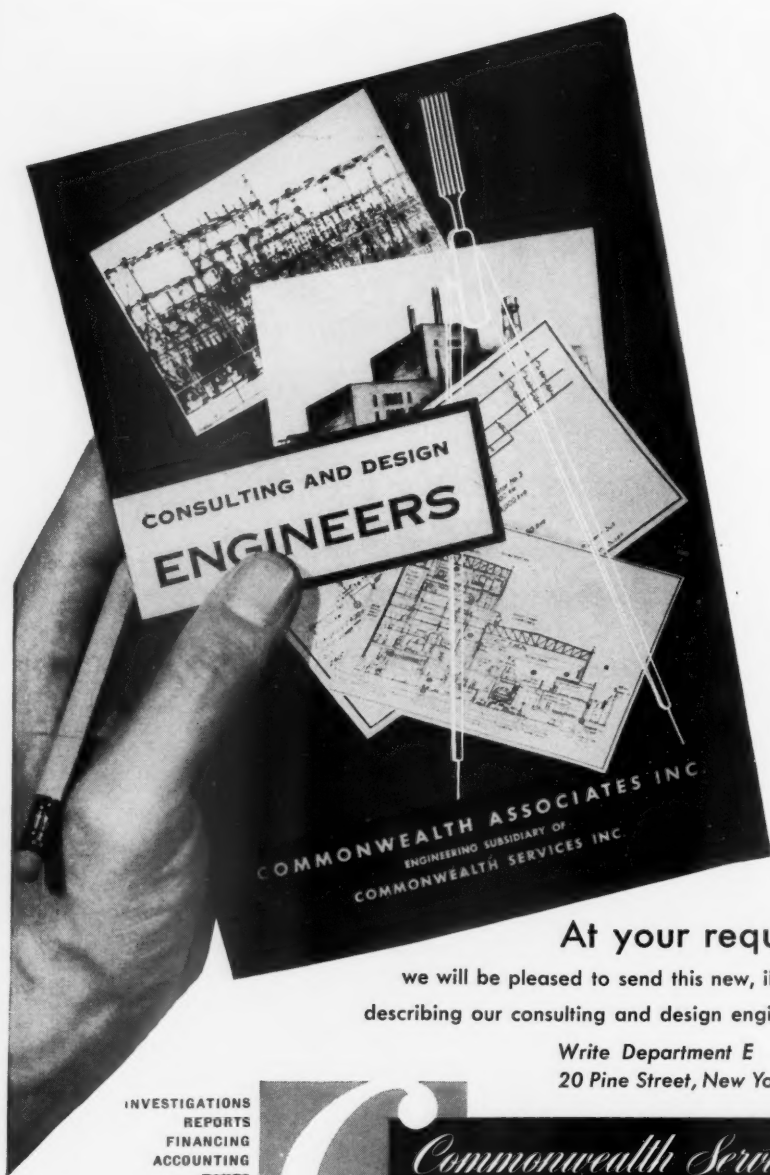
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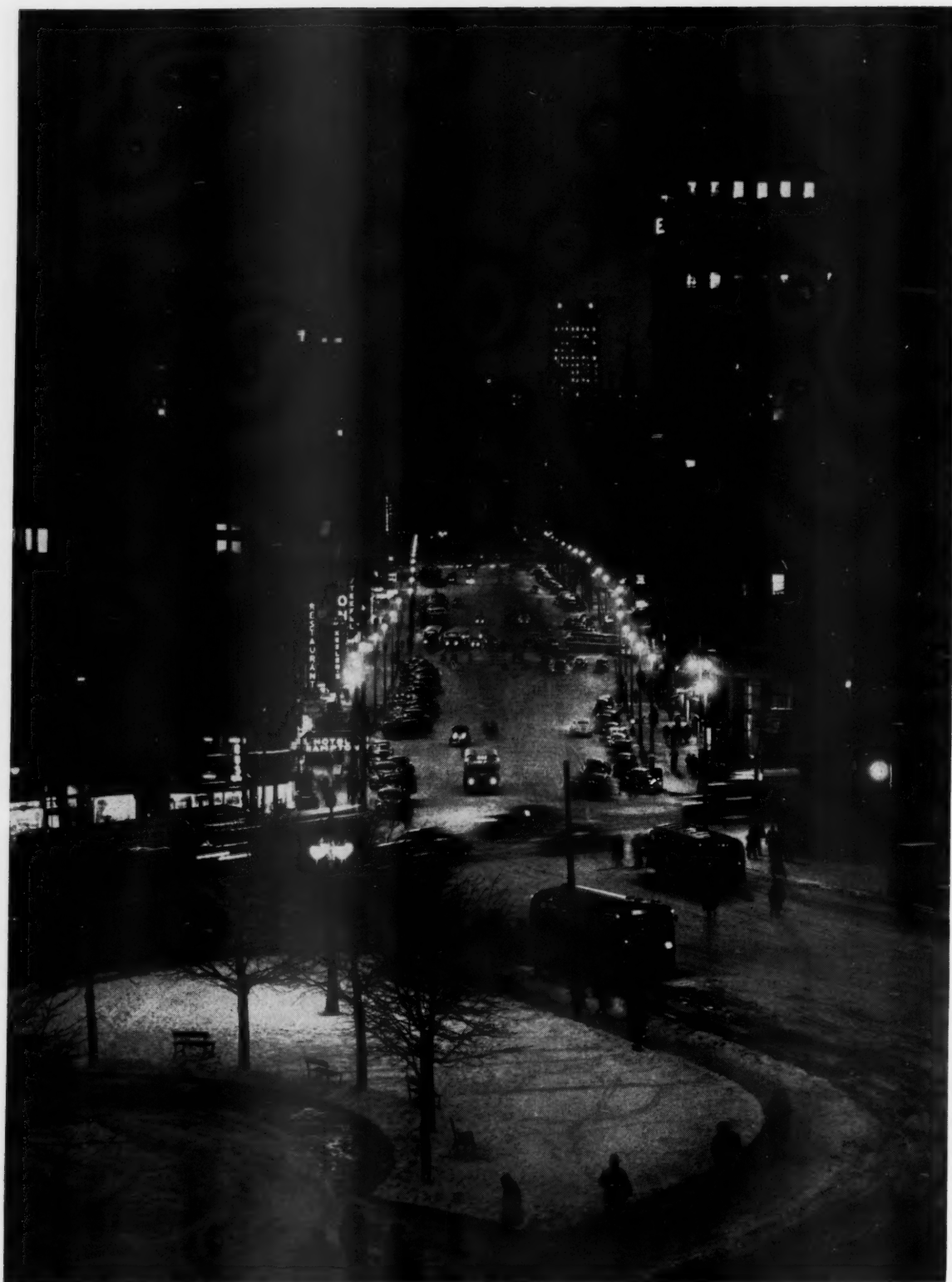
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# UTILITIES

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### SEPTEMBER-OCTOBER

<b>Thursday—29</b> <i>American Transit Association ends 4-day annual meeting, Boston, Mass.</i>	<b>Friday—30</b> <i>Edison Electric Institute, Transmission and Distribution Committee, ends 2-day meeting, New Orleans, La.</i>	<b>OCTOBER</b> <b>Saturday—1</b> <i>Standard Engineers Society ends 3-day annual meeting, Hartford, Conn.</i> 	<b>Sunday—2</b> <i>North Carolina Independent Telephone Association will hold annual convention, Pinchurst, N. C. Oct. 17, 18. Advance notice.</i>
<b>Monday—3</b> <i>American Institute of Electrical Engineers begins fall general meeting, Chicago, Ill.</i>	<b>Tuesday—4</b> <i>American Gas Association will hold annual convention, Los Angeles, Cal. Oct. 17-19. Advance notice.</i>	<b>Wednesday—5</b> <i>American Water Works Association, North Central Section, begins annual meeting, Minneapolis, Minn.</i>	<b>Thursday—6</b> <i>Pennsylvania Electric Association, Communications Committee, begins fall meeting, Pittsburgh, Pa.</i>
<b>Friday—7</b> <i>Indiana Electric Association ends 3-day annual convention, French Lick, Ind.</i>	<b>Saturday—8</b> <i>American Welding Society will hold national fall meeting, Philadelphia, Pa. Oct. 17-21. Advance notice.</i> 	<b>Sunday—9</b> <i>National Safety Council, Transit Section, will hold annual meeting, Chicago, Ill. Oct. 17-21. Advance notice.</i>	<b>Monday—10</b> <i>United States Independent Telephone Association begins annual convention, Chicago, Ill.</i>
<b>Tuesday—11</b> <i>National Electrical Industries Show, sponsored by the Eastern Electrical Wholesalers Association, begins, New York, N. Y.</i>	<b>Wednesday—12</b> <i>Gas Appliance Manufacturers Association begins annual meeting, Palm Springs, Cal.</i>	<b>Thursday—13</b> <i>Oklahoma Utilities Association, Eastern Electric Light and Power Division, begins meeting, Okmulgee, Okla.</i>	<b>Friday—14</b> <i>National Society of Professional Engineers begins fall meeting, Memphis, Tenn.</i>



*Courtesy, Niagara Mohawk Power Corporation*

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# Public Utilities

## FORTNIGHTLY

VOL. 56, No. 7



SEPTEMBER 29, 1955

### Transit Isn't *That* "Sick"

*In its fight to win public understanding and to identify the community's interest with its own, transit is meeting head-on the notion that all its problems would be solved with more frequent service, lower fares, or both. Traffic control, tax revision, and better operating conditions must be included in all programs of rehabilitation.*

By DONALD C. HYDE\*

PRESIDENT, AMERICAN TRANSIT ASSOCIATION

WITH increasing frequency, transit is being called a "sick" industry.

Scarcely a week passes without some newspaper editorial, or some magazine or business publication article referring to the industry's "plight" and to the "crisis" brought on by the "squeeze"—between mounting costs and declining patronage—which has plagued urban transportation systems in the postwar decade.

While it does have a brighter side, reflecting a growing public awareness of

transit's essentiality, this dubious distinction of undergoing a depression of its own in the midst of general prosperity is as unpleasant to the industry as it is unwanted. For the overemphasis of the industry's problems serves to obscure the courageous and effective way transit is fighting back.

Transit is by no means as "sick" as it has been diagnosed to be by those who insist on comparing its present level of revenue passengers with the abnormal and artificial peaks of World War II days. Recent investor activity substantiates the in-

\*Also general manager of the Cleveland Transit System. For additional personal note, see "Pages with the Editors."



## PUBLIC UTILITIES FORTNIGHTLY

validity of such comparisons and proves there is capital available for properties no longer content merely to "provide" service but which are gearing themselves to compete with the private automobile by improving and merchandising public transportation.

**D**ESPITE their accelerated tempo, the recent lamentations regarding transit fail to make clear these basic facts:

- (1) Transit may be "sick," but it cannot die.
- (2) The community simply cannot permit it to die.
- (3) Transit cannot be "isolated" by the community.

The "plight" being increasingly bewailed is not transit's exclusively. Nor is the "crisis" one affecting only the public transportation systems of our cities. And the "squeeze" pinches far more people outside the transit industry than in it.

The same virus that has been undermining transit also has been enfeebling the community — causing disintegration of downtown districts, diffusion of major tax sources, and disruption of whole municipal economies. That virus, of course, is traffic congestion.

Congestion—especially at the city's center—is more devastating than the mere inconveniencing of people. What it does to transit is fairly obvious. It takes away paying customers and increases transit's costs through time losses incurred in the competition for scarce street space. As transit's product—the ride—is slowed down by congestion, transit's customers abandon it for their own cars. The congestion, of course, grows worse, and that brings on the damage to other businesses,

as well. For with growing congestion more and more people shun downtown—refusing to come there either by transit or in their own cars—and the city's core loses business to places more readily accessible.

**T**RANSIT long has recognized these facts. It is doing all it can to help itself and the communities it serves. There is no pat answer that can be applied universally, but each community, through co-operative effort on the part of its various elements, can and must apply specifics to solve its own downtown problems. Transit and the private automobile can and must complement one another. Transit can be integrated into a city's planning, and can be used constructively—as a positive tool—to break up downtown traffic jams which are at the root of central city disintegration.

Unfortunately, too many in these days of individualized transportation regard transit as a problem for the other fellow. Too few recognize the problem as one which affects everyone because its roots are so deeply embedded in our entire economy as to constitute a major and growing threat to the very urban civilization which enables so many of us to *have* automobiles. The situation contains both paradox and irony. It is paradoxical that the most efficient of all peoples insists on using the least efficient means of transportation in congested areas—downtown. And it is ironical that the private automobile, the most prominent evidence of our mass production proclivities, is becoming so serious a problem that it is undermining the urban civilization which created it.

Many elements of city life are coming around to the view — long held and forcefully enunciated by transit—that we

## TRANSIT ISN'T THAT "SICK"

must reverse the trend of the last decade and now focus our attention on the movement of people, who buy things, instead of on vehicles, which do not. Committees for the revitalization of downtown are springing up in many cities. Thoughtful community leaders are conceding that transit is indispensable in arresting decentralization; that policies which have all but omitted public transportation from planning for the daily movement of vast numbers of people in congested areas serve as an invitation for business to leave downtown, and that these policies must be altered drastically.

But, late as the hour is and despite the fact that inaction itself amounts to a policy-making decision, reversing the trend which has catered practically exclusively to the automobile is not going to be easy. For in reaching for the Utopia of individualized transportation—"Autotopia," it has more aptly been called—our cities have created some roadblocks of fixed opinion which are going to be extremely difficult to dissolve. The futile and excessive expenditures made to try to offset our urban sprawl—by accommodating the automobile driver—have produced the erroneous, but none the less widely held, belief that a solution of the problem could be achieved in this way.

**I**t will require a high degree of political and civic courage to reverse the trend;

to step on the toes that must be stepped on; to admit past planning errors; to acknowledge that higher and higher expenditures for street widening and parking facilities serve only to lure more and more cars—but fewer people—downtown. However, the traffic chaos evident on all sides today is giving weight to the arguments of those courageous enough to advocate much needed policy changes. For what community—no matter how much it has expended in quest of a "solution" to the traffic problem—can say it has less congestion downtown today than when it embarked on its costly venture?

It is gratifying to those in the industry that transit has been the liveliest factor in most cities in compelling recognition of the downtown problem. Through our efforts to alert community leaders, we have given ample evidence that transit is not operating in a vacuum, or about to call it quits. For a "sick" industry, transit has manifested a remarkable faith in the future. Transit is firm in its belief that its service will be as essential in the revitalization of our cities as it was originally in shaping those cities and their central business districts. Transit intends to remain a vital partner in all downtown business—the factor that brings downtown businessmen their working forces as well as their customers, the element which contributes so much to the value of downtown property—backbone of a city's tax structure.



**Q** "WITH increasing frequency, transit is being called a 'sick' industry. Scarcely a week passes without some newspaper editorial, or some magazine or business publication article referring to the industry's 'plight' and to the 'crisis' brought on by the 'squeeze'—between mounting costs and declining patronage—which has plagued urban transportation systems . . ."

## PUBLIC UTILITIES FORTNIGHTLY

Transit is aware that it cannot expect a high priority position from city planning officials if all it has to offer is a philosophy of futility—if all it does is cry for help. It knows, too, that it cannot expect status in the blueprints of tomorrow to be handed to the industry—that it must earn that status. The industry is hard at work at that job, and there are a great many examples of how transit is adjusting itself to the changing times—how it is aggressively and forthrightly pursuing a course of freeing itself from hamstringing antiquated concepts both in taxation and in slow-moving regulation which retard experimentation with fares and service.

In its fight to win public understanding and to identify the community's interests with its own, transit is meeting head-on a notion that has been a long-standing stumbling block to the industry's progress. That notion—repeated at virtually all rate hearings—is that all transit has to do to solve all its problems is to provide more frequent service or reduce fares, or both.

The supply of service is a matter of meeting the demand for service. High frequency of service will not of itself create a greater demand. This is just as true in transit as it is in other utilities, such as electric power, gas, and water. Two illustrative cases are noteworthy.

**I**N St. Louis, an experiment was conducted in 1951 to test the drawing power of increased service. With much publicity and advertising, service was doubled on two bus lines and two streetcar lines for a period of ninety days. It was an avowed, all-out effort to induce increased riding. The results? Additional returns amounted to less than 10 cents per mile as against additional out-of-pocket

operating costs of from 30 to 40 cents per mile for the buses and 50 to 60 cents per mile for the streetcars.

More recently, in Sacramento, California, the financing of a similar experiment was shared equally by the transit system and the municipality. The problem was publicly and widely stated to be: "How to accomplish a shift from the private auto to mass transit" with the objective of reducing traffic congestion. For three months, service on one line was doubled, again with much publicity and advertising and in conjunction with a "Ride the Bus" campaign in which civic leaders and public officials played prominent rôles. The increase in revenue was about \$450 as against the more than \$5,000 it cost to conduct the experiment.

In combating the second "pat" panacea—that reducing fares will increase the use of transit—the industry likewise is using the thesis that information is the basis of understanding. It is emphasizing that its position is that lower fares undoubtedly would increase the use of public transportation and free rides would increase patronage still more, but there are economic limits to such a procedure. The industry is seeking a realistic acceptance by opinion leaders of our communities that today's base price for an average transit ride is both equitable and economical in today's economy. Their acceptance will lead to public acceptance and this, in turn, will give transit the opportunity to create the logical and attractive price structure that can be merchandised with full effectiveness.

**P**RIce structure is at least as important as price level—if not more important. Transit merchandising depends on it. The

# TRANSIT ISN'T THAT "SICK"



"CARS ARE NOT CUSTOMERS—PEOPLE ARE!"

industry must have a price structure that meets the needs and varying demands of its customers. Ideally, it should be related to the distance traveled and the type of service provided. It should include a zone system of fares to accommodate both the short-haul and the long-haul rider. It should include premium fare for premium service, and it should also include bargain-basement opportunities in the form of special promotions.

But the appeal of transit is subject to more important—and more lasting—stimulants than mere pricing, and the industry is working on such objectives as speed, convenience, public acceptance, and others. Of all such stimulants, speed is by far the most important. The rider's reaction to a

faster ride is most favorable, and he is willing to pay a premium fare for it. Total elapsed time from point of origin to point of destination is the most significant reason why people prefer to ride the private automobile.

To meet this competition, express bus service is being offered in St. Louis, Atlanta, Washington, Cleveland, Chicago, Los Angeles, Philadelphia, Dallas, Detroit, Pittsburgh, San Francisco, Indianapolis, Milwaukee, Minneapolis and St. Paul, and Vancouver, British Columbia, among others. Express buses are sometimes distinguished by flags which provide a bit of distinction some riders seem to prefer as well as the impression of speed as the pennants flutter with the move-



## PUBLIC UTILITIES FORTNIGHTLY

ment of the vehicle. Running time from various stops to downtown are emphasized, as are time savings over regular service.

**T**HAT there has been an unwarranted exaggeration of the importance of fares in the passenger's mind is evidenced by the fact that, by and large, express service is gaining riders—at premium fares—while passenger decline continues in regular forms of transit service.

Transit is making mighty efforts to make its service convenient. For special events, such as baseball and football games and other sports events, as well as for municipal undertakings of various kinds, special express service is being provided in many cities.

In varying forms, many transit systems are providing and promoting perimeter parking-transit riding plans. To name but a few, Boston, Cleveland, St. Louis, Providence, Atlanta, Baltimore, Chicago, Philadelphia, Pittsburgh, Harrisburg, Toronto, Washington, and Richmond are cities in which the transit system makes a major contribution in keeping automobiles out of the city's center by serving motorists who prefer to avoid the worst of metropolitan traffic congestion by riding transit for the inner portion of the journey. In these arrangements, the transit vehicle is brought as close as possible to the points where motorists make the switch from the private vehicle to public transportation. Maximum convenience naturally is transit's aim in providing this service in an effort to win back riders. But at the same time, these efforts provide the city with a noteworthy opportunity to keep many cars out of downtown and to save substantial amounts that otherwise would have to be spent for street widen-

ings and on other attempts to accommodate more cars. Based on the average occupancy of 1.5 persons per private car, which traffic engineers say applies downtown, for every three persons transit woos back onto its vehicles, two automobiles are kept out of downtown streets.

**P**ERHAPS the most publicized of all transit merchandising efforts has been the club bus plan initiated in Cincinnati a few months ago. After canvassing the residents of a suburban community, the transit company began operating three buses daily each way into and out of downtown—at times specified by the riders as most convenient to them and on practically a door-to-door service basis. A monthly charge of \$10 is made, plus 10 cents—or half the regular fare per ride. Each club member has a guaranteed seat. The cost to the user of the service, which embraces the principle of a stand-by charge—a feature enjoyed by other utilities but not by transit—is below the cost of driving and parking. That this club plan is working, and being expanded to other communities near Cincinnati and considered by other transit systems, is most encouraging, for it represents a specific instance of getting people out of their cars and back onto the transit vehicle.

There are many more examples of how transit is converting to a business that does much more than merely "provide" service. Some heartening results have emerged from these efforts. In many communities, relief has been granted from gross receipts and other taxes unrelated to earnings. In Wisconsin, a law has been enacted granting statewide relief to transit operators and basing taxes on earnings. In many cities, committees of citizens

## TRANSIT ISN'T *THAT* "SICK"

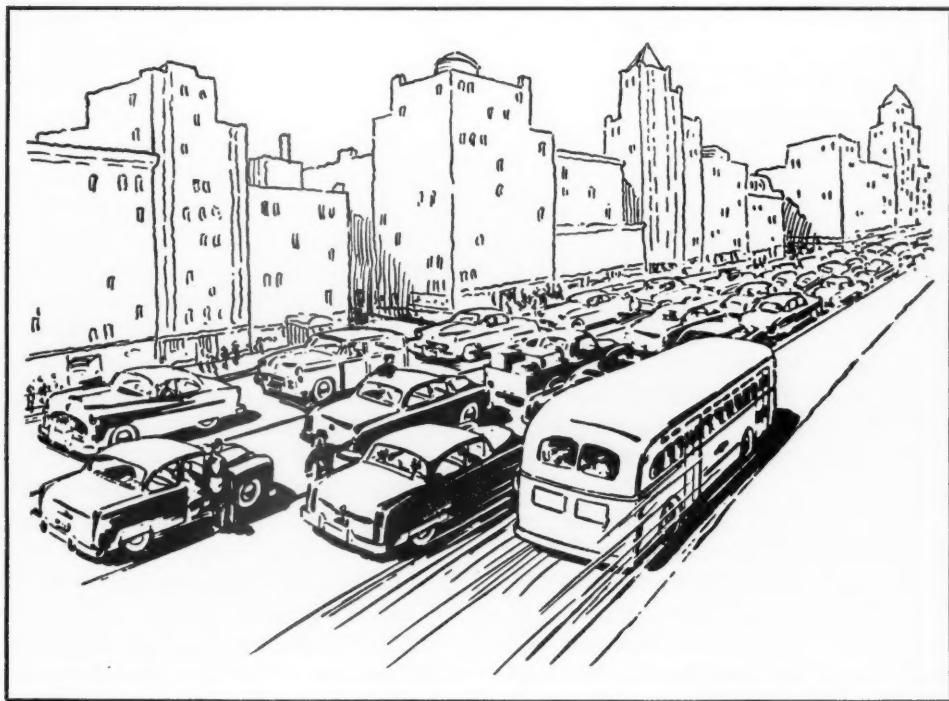
have made and are making thorough studies of how the transit system can be integrated efficiently with the over-all transportation system. In short, there is developing a definite trend toward thinking in terms of moving people instead of vehicles.

**W**HEREVER thoughtful citizens undertake studies, the conclusions are inescapable. Transit invariably is "discovered" to be the most efficient user of scarce street space and the study groups suggest greater use of transit. "Ride the Bus" campaigns are being conducted in various cities, and special efforts are being made by political and civic leaders to persuade citizens that greater use of transit will result in better service and greater freedom

for all on crowded downtown streets.

A few examples will illustrate the degree of concern being manifested. In Toledo, a citizens' transit study committee reported:

Cheap, off-street parking defeats a solution of the problem of mass public transportation and defeats a solution of the problem facing the central business district. The same amount of money expended by a central business district merchant to provide either off-street parking facility or to subsidize a customer's off-street parking, will produce more business if expended in subsidizing the fare of a customer using an adequate public transportation system which is enabled to move its buses with facility to, through, and out of the



## PUBLIC UTILITIES FORTNIGHTLY

central business district. When the day comes that public transportation vehicles can get into, through, and out of the central business district with reasonably unimpeded dispatch, the need for further increased off-street parking facilities will diminish, and those who still require or insist upon operating private vehicles into the district will be expected to and will pay a charge for the use of off-street parking facilities higher than the cost of public transportation. Cheap off-street parking will not only deteriorate mass public transportation, but it will not solve the problem of the central business merchant. His business will still remain "fare game" to the suburban area shopping center merchant, who, we might point out, offers parking for free. Those things must be done which encourage use of mass public transportation. They must be enabled to give faster service, which requires elimination of traffic congestion caused by on-street parking.

A NEW organization known as "Downtown Toledo Associates" has been formed in that city, with a first-year budget of \$147,307, to revitalize the central business district. In Tulsa, on a smaller scale, a similar movement is under way, with revitalization of downtown as the major objective and with encouragement of greater use of public transportation as a principal means of achieving this end.

These and many similar evidences of the recognition of transit's essentiality are highly encouraging. But transit cannot be strengthened — and more importantly, downtown cannot be strengthened—on the basis of the sentimentality indicated

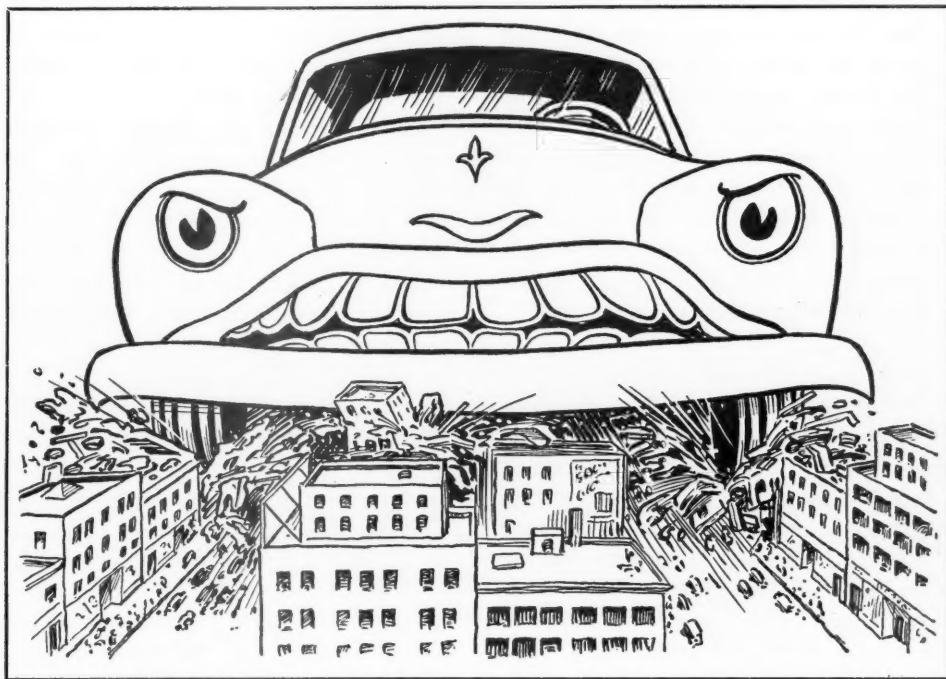
by "Ride the Bus" campaigns, no matter how well meant they are. A much firmer foundation is needed—one based on public understanding of the close relationship between a healthy downtown district and an economically sound transit system.

Transit recognizes that the presentation of the facts that will bring about such an understanding is, in a large measure, its responsibility. It is working hard to fulfill its obligations by co-operating with all groups interested in making studies to bring the facts home to the people. In such studies to date, the superiority of transit in making economical use of downtown street space is irrefutable. More importantly, such studies show the vast savings that could be effected by transit if given an opportunity to speed up its service. Greater speed, which in turn would attract more riders and give economic soundness to the operators of transit, would produce such substantial savings as to enable transit still further to improve its service, increase its seat ratio, and, in general, come a great deal closer to giving the people the kind of better ride they want—and which transit wants them to have.

THE extravagance of street space utilization by the private car is highlighted in a recent report by a Baltimore citizens' committee which found that of the maximum accumulation of people in the downtown area, two-thirds came there by transit. Of special significance is the fact that the study made comparisons with 1934, showing that vehicular movement downtown had increased by 75 per cent, but the movement of people had increased by only 54 per cent.

"This," said the committee reporting, "is explained by the fact that transit ve-

## TRANSIT ISN'T *THAT* "SICK"



"EXPENSIVE TRAFFIC THROUGH WAYS EAT UP VALUABLE PROPERTY"

hicles carried about the same number of people in 1955 as they did in 1934, and is a measure of the inefficiency of the private auto as a mover of people in large volume. The importance of mass transit also is measured by the fact that two-thirds of the people who were downtown at the time of maximum accumulation of people in the area had come by transit. This remains unchanged from 1934, but the maximum accumulation of people in the central area in 1934 was higher by about 9,000 than in 1955."

Such facts—fewer people despite a tremendous increase in vehicles and in population—cannot be ignored. They explain the growing concern about the disintegration of downtown districts. They explain, also, the heartening interest being

manifested in the transit situation by many who do not own or operate transit systems.

ONE example of the interest being manifested in transit's problems from outside the industry is noteworthy:

In October, the National Association of Railroad and Utilities Commissioners, at its meeting in Asheville, North Carolina, will conduct a panel discussion on critical problems faced by the transit industry "and communities across the nation." This discussion, by men who regulate the industry, is viewed by transit operators as a most timely piece of evidence that the industry's efforts to elicit understanding for



## PUBLIC UTILITIES FORTNIGHTLY

its position are gaining momentum and that the co-operation it seeks, in order to do the better job it wants to do, is not far off. One hoped-for result is that their airing of this vital subject will convince these regulatory officials of the need for greater speed in acting on transit cases, and that they will recognize that prompt consideration of such cases is for the benefit of the community as a whole and not just transit.

AT a transit seminar held in Chicago last June, Corwin R. Mocine, Oakland, California, engineer, had a plan that the industry would like to see all cities adopt. "We must ask ourselves," he said, "whether it would not be wiser to spend the next \$50,000,000 or \$100,000,000 in a given metropolitan area on a transit system capable of attracting a substantial number of people who have a car but would use transit if it were made sufficiently fast and convenient. We must assign each task to the vehicle and facility which can discharge it best in relation to all the factors in our problem of how to move people and goods most efficiently. When we speak of the intolerable congestion of urban areas we are talking almost entirely about the morning and evening peak hours. It is in reducing this peak load on surface streets that transit seems the most appropriate means."

With so many outside the industry becoming aware of transit's importance, it is evident transit has not been "sick" in the matter of winning public understanding. Transit has effectively made its point as to "why" greater use must be made of public transportation in congested areas—especially in the downtown district. The

next step—and the industry already is at work on it—is to achieve acceptance of the "what" and "how" of transit's ability and willingness to serve.

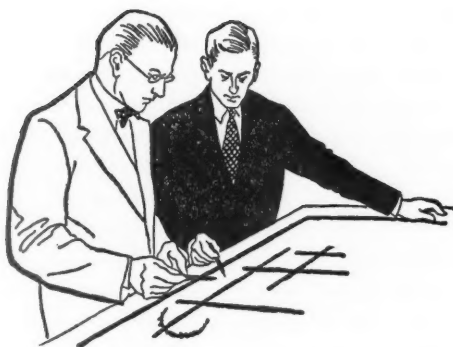
In our various cities, transit operators must spell out the street-by-street and route-by-route steps they propose in order to give—not the transit system, but the people of the city—a "break" in the form of less congested streets on which to come into and leave downtown, whether by transit or by automobile.

TRAFFIC control, revision of tax policies, and improved transit service are primary factors that must be included in any program of rehabilitation. Not by prohibition, but by regulation, cities can help themselves by providing better access to downtown—both for the transit vehicle and the motorist. But only close co-operation on the part of various community elements can achieve relief from strangulation by traffic and further disintegration of central business districts.

Transit offers its support—and leadership—in getting community leaders together, and continues to urge acceptance of unbiased and impartial advice which is available to all communities truly interested in attacking this problem for the greatest good of the greatest number.

That such an approach ultimately will improve the health of the transit industry cannot be doubted. For renewal of our cities must bring renewed vigor to transit.

Transit not only is not as "sick" as some have portrayed it to be. It is very much alive, and remarkably active and energetic. In its possession it has the very factors that can do much for our cities of the future.



## Transit Helps to Save Downtown Business

*One important angle of modern transit operations is the need for saving the downtown business area. This, of course, is everybody's job who has a stake in downtown business, including the learned professions. What, in short, is the pattern of the future American city going to look like, and how is it to be served with mass transportation in both the mother city and the growing suburban community?*

By GEORGE W. KEITH\*

A REPORTER, seeking an interview on the impact of fading transit fares on downtown, was asked, "Don't you think this should be written by a transit official?"

Conversely, in Utah a transit owner said his company "feels very strongly we should not cry on the public's shoulder, the way the industry has done in the last few years . . . people have enough trouble. Moaning often creates unsympathetic reaction."

Question: Should transit toot its own horn, more, less, or not at all? If the latter, who will mournfully moan for it, "Help! We perish!"?

\*Professional writer, resident in Cincinnati, Ohio. For additional note, see also "Pages with the Editors."

And, in seeking sympathy and co-operation in stemming downtown disaster, has transit been pressing too hard on its klaxon until other interests have become injured to the sound?

Are these other interests alive to the implications of a bankrupt transit industry? And, will cities welcome the opportunity to grab transit, with all the grief which goes with such gain?

Will city hall miraculously cause decay and decentralization to stop and reverse the process, bringing prosperity and happiness to downtown, while transit flourishes like the green bay tree?

ATTEMPTING to learn the answers to some of these things, PUBLIC UTILITIES FORTNIGHTLY assigned this reporter

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to canvass the nation. He was told to uncover what, if anything, is being done by business, officialdom, and the general public to aid transit's so far almost single-handed crusade to save itself and downtown.

In Washington, D. C., transit's efforts to interest merchants in offering free rides with the purchase of a stipulated amount, was rejected by the larger department stores. They indicated outlying patrons were being served at neighborhood and branch store centers. They declined to join the specialty shops in issuing validation coupons. The background explanation, of course, was that the department stores had already established suburban branches, whereas the smaller specialty shops located downtown had not the advantage of such branches.

Said a prominent magazine editor:

Such an attitude is shortsighted. It quite ignores the dark shadow which traffic congestion is casting upon midtown property values in our cities. It illustrates the pressing need for cooperation by all business interests to find means to solve this vexing problem. It is up to the transit people to tell their story.

AND the learned professions, medicine, law, dentistry, with all their modern emphasis on specialization, have just as much stake in preserving "downtown" from the cancerous blight of traffic paralysis and slum decadence as the merchants. Nearly all major cities have developed medical center areas, where patients may be diagnosed, X-rayed, or treated for dozens of different ailments without stirring out of the same building—thanks to the concentration of medical specialists

and allied technicians (druggists, optical stores, etc.). As one large, new downtown medical building specialist jokingly remarked, "We can now give our patients bumper-to-bumper service, right on the premises."

Lawyers, bondsmen, title companies likewise cluster in buildings around the law courts, which are usually in the center of the city. Will these professionals stand by and watch these office properties, with all their valuable specialized equipment, libraries, etc., share in the decay and lost values of progressive downtown deterioration? Will they relish having their patients and clients harassed in keeping appointments by traffic congestion, and will they look forward to conducting their professions in slum locations?

Of course, the professional centers can eventually follow the trend to the rapidly growing fashionable suburbs, but decisions will be more difficult for them than for the department stores. After all, a department store can divide itself into as many branches as it can establish without giving up the original store downtown. But a professional specialist, as a general rule, can do business only in one office, and must make a definite decision where he wants to operate.

W. H. (BILLY) SPEARS, public relations wizard for National City Lines, says the "American Transit Association is doing a mighty fine job on the national level, promoting panel discussions and helping its over three hundred members."

Spears' own contribution to progressive enlightenment is his "Clip Sheet," which not only reaches ATA members, but all state associations, city and suburban lines,

## TRANSIT HELPS TO SAVE DOWNTOWN BUSINESS

editors, writers, city planners, traffic engineers, trade and professional magazine editors, some state commissioners, city officials, downtown merchants, etc.

Some 300 companies buy and distribute the sheets in their areas, and some state organizations mail them to legislators. Thus 9,500 copies circulate four times monthly. A comprehensive coverage, reporting bad and good transit-downtown congestion news, dramatically, with newspaper facsimile clippings on one huge sheet each issue.

**"I** BELIEVE," Billy told me, "ATA and my 'Clip Sheets' have succeeded in sowing seeds." He added:

Implicit in any franchise is the expectation that reasonable conditions exist to permit transit to go about its business. Communities can neither afford the present traffic mess, nor the tremendous cost of expressways and parking facilities . . . for a future transportation system, based primarily on the private motor vehicle.

He thinks ATA and the "Clip Sheet" have inspired assistance from such organizations as the U. S. Chamber of Commerce, which in turn have interested local outfits, thus changing "be tough with transit" to "sympathetic understanding."

Spears fuse-capped "Ride the Bus" campaigns in Davenport and Ft. Dodge,

Iowa; Rock Island, Moline, Freeport, and Kewanee, Illinois; Sacramento and Santa Monica, California; Great Falls and Butte, Montana; and in Salt Lake City. In the latter place the premier of a new song occurred.<sup>1</sup>

**H**ARRY OLTSCH, public relations expert for the Springfield (Massachusetts) Street Railway, told a gathering in Providence:

History tells us Nero fiddled while Rome burned. Your city and my city are burning. . . . we're all standing idly by, trying to decide what type of extinguisher we should use. . . . in many respects our situation is even more serious (than Rome's) because of the apathy prevalent everywhere.

It is not transit apathy. Rather does the position of the Washington, D. C., merchants typify not only apathy, but resort to the first alibi, "Am I my brother's keeper?"

<sup>1</sup>"Ease That Squeeze" is a record which Spears hopes to energize into another "Trolley Song"; the second verse declares:

The mayors and the councils,  
And the city folks, too,  
Are in a great big mess,  
And they don't know what to do.  
They're huffin' and puffin',  
But not getting much done  
It's just a big headache,  
And it isn't any fun.

With help from local companies this record should reach millions of ears with its theme—ride the bus to ease that squeeze.



**Q** "DOWNTOWN must rely on appeal to civic pride, so far notably IN ABSENTIA. Structures on main streets are occupied at ground level by attractive shops. Above that, tenants, soap, water, and paint do not exist; annual 'clean-up and paint-up' drives have bounced off, leaving their façades untouched. 'It is the same in every city' seems to be sufficient justification for the condition."



## PUBLIC UTILITIES FORTNIGHTLY

The modern reply is the same as it was in antiquity. As murder was there involved, so is it today in the figurative destruction of downtown.

Transit and downtown are blood brothers. The horsecar made downtown an oasis for travelers from the hinterland, a place where the thirst for good and varied merchandise was satisfied. Transit electricity and gasoline steadily improved and perfected downtown by pouring millions of shoppers into compact areas.

Now that other forms of transportation have appeared, downtown finds itself literally in a jam. Now is a Damon and Pythias loyalty called for.

**F**AR too often, when proposals seem likely to affect his receipts, the downtown merchant balks. His ox is a sacred cow, marked "Don't gore." Tear down buildings; put parking lots in their places, but leave his place alone. If transit and others face insolvency, it is because they are not as clever as he. There is little sense of dedication to the area, nor gratitude for transit for its contribution in creating the area. For example:

In Chicago last fall, thirty cities, large and medium, from all over the nation, and Canada, formed the International Downtown Executives' Association, to seek and exchange information on downtown.

"Probably the most important thing about the meeting was that it was held at all," said Harry Morrison, general manager of the Los Angeles unit. It arrived at some startling conclusions:

1. They were almost unanimous for off-street parking, whether economical or not. People want it, they said.
2. Customers and retailers say park-

ing costs are too high. The first hour fee covers cost of whole day lot operations, usually. Most retailers are not validating parking. Goods and prices bring in customers without this they say; and validation costs are "out of line."

3. Nineteen units wanted parking authorities, with cheap parking at government expense, for dollar-day specials and Christmas times.

4. Granting that fringe parking is an important solution, and that it was agreed that a healthy mass transit is most important to downtown, it was recommended that leaders and transit work together, as there is mutual distrust in some cities.

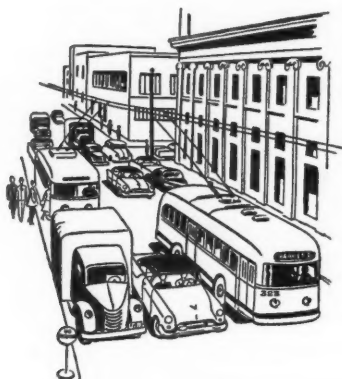
5. Underground garages were found too costly, unless land is free as it was in Los Angeles, San Francisco, Pittsburgh, and Chicago.

6. There was sentiment for tax relief to improve service, but not to increase transit dividends.

**T**HE Chicago Transit Authority got tax abatement, paying no federal tax, *but is losing passengers as are all others*. Incidentally, the Chicago State Street Council succeeded in appropriating \$100,000 annually from members, mostly retailers. Old buildings were altered to make way for two- or three-story modernized storage places. But buildings were not razed as in Los Angeles. The Cincinnati Library coming down in the heart of that city provided 15,200 square feet of very valuable ground to park about 100 cars.

Commented Morrison in his report:

This is hardly an economical way to run the civic business. It is like living off your capital, never improving your



### How to Make Rapid Transit Rapid

*"MUNICIPAL operation is not the answer. More parking space downtown adds tumult to confusion, as do expressways and unlimited travel by private cars. Rapid transit is only rapid outside the periphery; once it reaches the perimeter of the city core it is tortoise transit, unless it takes to tunnels or elevated rails. Tax adjustments for transit may increase earnings or avert losses, temporarily. But they will not add riders so long as private cars have unrestricted access to downtown."*

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net worth. Many old buildings are being destroyed before their useful life span is reached. Modernization could renew their value . . . it is happening almost everywhere.

Morrison summed up the results of the meeting in effect as follows:

Downtown is still a very virile area of tremendous business possibilities and is vital to the entire area served. It needs executive, judicial, and legislative help, with city officials being made aware of its importance, with co-operation from all elements, and in an atmosphere of great frankness.

Off-street parking must be provided. If this is in contradiction to efforts to

maintain mass transit, it is "just too bad."

WHAT an idea from such a group! It is rendered all the more puzzling by the fact that there was general agreement that autos be kept out of the city to give mass transit a chance. This much space has been devoted to the meeting because so many large cities attended, such as New York, Philadelphia, Los Angeles, and Pittsburgh.

Pittsburgh has received much attention because of its rehabilitation of its downtown, the Golden Triangle. In all the acclamation, little attention was paid by the congratulators to the loss of passengers of its transit system.

## PUBLIC UTILITIES FORTNIGHTLY

However, city hall and the press are keenly conscious of what is going on. During last year's ATA convention there, the *Sun Telegraph* remarked that transit has been a whipping boy too long, adding, "until Mayor David L. Lawrence called for a community campaign to bring riders back to mass transit, little has been done in city hall to help the railways company work its way out of its many problems . . . This . . . should not be construed as a simple effort to save Pittsburgh Railways. It is more vital than that. It involves the preservation and development of the Golden Triangle."

This is enlightened thinking. Every city has its own Golden Triangle, under whatever name. Save it, and you save transit. It works the other way, too. These Siamese twins cannot survive surgery aimed at saving one or the other.

THE *Pittsburgh Press*, supporting this, said "without a mass transportation system we soon would strangle in our own traffic. It is just not possible to get enough people downtown in their personal autos to sustain the life of a downtown district."

The *Press* quoted Park H. Martin, executive of the Allegheny Conference, a private organization behind the billion and a half "rebirth of Pittsburgh." "It is about time business interest and the public showed more concern about the success or failure of mass transportation," reiterating what has been said in this magazine frequently, "If we show the same spirit we have shown in other fields, our transit problem can be licked."

He stated that a little more than half the \$125,000,000 spent there on limited access highways would take vehicles off the street; and he chided transit for

"failing to do a good public relations job." In this, the writer's observation does not agree.

Advertising has its limitations. It is not a panacea. Applied to a new product of genuine value it works wonders, the same as it does with old products seeking new horizons for expansion.

However, "Where possibilities of expanding a market do not exist, or where there is a declining trend of demand, cooperative industry advertising campaigns have not been able to succeed," according to Professor Neil H. Borden, Harvard Graduate School of Business Administration authority.

Transit is definitely in this category, having lost 10 billion rides in the past ten years, in spite of all its "moaning," as the Utah transit man calls its effort to acquaint the world with its jeopardy.

HARRY OLTSCHE, previously quoted here, offered himself as a sacrificial lamb for Springfield Street Railways. A believer in "adult education," he ran for council; joined Rotary, Lions, sales and executive clubs, church organizations, and the Adult Education Council, etc.

During his two-year term a city traffic engineer was hired, a friend acquired; tactfully in all his contacts he explained his company's rôle in the city; talked over schedule changes with the riders and the reason for them, etc.

The *Union*, Springfield newspaper, has taken up the cudgels for transit in a splendid editorial, which got the whole story across. Also, the transit company uses Billy Spears' "Clip Sheets" to advantage.

But, it is still among the majority of unprofitable transit operations—losing

## TRANSIT HELPS TO SAVE DOWNTOWN BUSINESS

fares and with nothing decisive being done to reverse the trend.

New England, after a short period of moaning over the loss of its centuries-old industries, girded up its loins, hitched up its britches, pooled its money and brains, and today whistles while its people work in newly imported industries. It has not only buttered its own bread, but added jelly and maple syrup.

This Yankee application to the task and facing of facts did not spread to transit, however. But it is just what is needed, not only in New England but all over the nation. Business has commiserated with itself long enough over decentralization and decay of downtown. It is time to realize that "traffic congestion isn't necessary—*your transit system is!*" This is not just a catchy slogan of Cincinnati Transit, and other ATA members.

THE Cincinnati Urban Renewal Program contemplates spending a million a year on public improvements in eighteen communities, rehabilitating older dwellings, providing traffic circles, shopping centers, and off-street parking where needed, with federal help.

Active, voluntary participation by neighborhood groups is essential, in a 10-to-14-year program. However, federal aid is contingent on its funds being used only in residential sectors.

Downtown must rely on appeal to civic

pride, so far notably *in absentia*. Structures on main streets are occupied at ground level by attractive shops. Above that, tenants, soap, water, and paint do not exist: annual "clean-up and paint-up" drives have bounced off, leaving their façades untouched. "It is the same in every city" seems to be sufficient justification for the condition. Will it continue when Urban Renewal meshes its gears?

In the meantime good buildings on the main stems make way for unbeautiful parking lots, and disgruntled small-businessmen are being evicted to create a serious discontent.

Responsible businessmen are aware of the critical situation. Four hundred of them attended a dinner to hear Colonel Bingham, New York traffic expert, on the subject.

J. REED HARTMAN, vice president in charge of sales for Cincinnati Gas & Electric, heads a committee to promote interest in a subway belt, such as the pending New York shuttle system.

This committee contends the cost of this would be little more than for erecting and maintaining parking areas where front footage costs are tremendous.

Another CG&E vice president, C. Maynard Turner, proposed a club plan to Cincinnati Transit. Improved and elaborated upon, the company now runs three buses to Mt. Lookout and back; a charter serv-



Q "TRANSIT and downtown are blood brothers. The horsecar made downtown an oasis for travelers from the hinterland, a place where the thirst for good and varied merchandise was satisfied. Transit electricity and gasoline steadily improved and perfected downtown by pouring millions of shoppers into compact areas."



## PUBLIC UTILITIES FORTNIGHTLY

ice, subscribers buy monthly tickets for \$10, and pay 10 cents for each ride. It takes riders to work, and returns them in the early evening.

The Flyers do not follow established routes, but pursue courses which will enable most members to board them at, or near, their own doorsteps.

This de luxe service has been declared a success, and other routes are in the making. Cincinnati transit ran a quarter-page ad in local newspapers thanking "All Cincinnatians who helped inaugurate the Mt. Lookout Club Flyer," with the names of fifty-eight men and fifteen women subscribers; a very clever Dale Carnegie gesture.

Rider reaction was unanimous in praise: a mid-day club plan has been suggested for shoppers. The company is on its toes.

At the same time parking interests have been told they must furnish 2,000 more spaces downtown or the city will do it. Along with this, more meters are being installed, both actions nullifying the efforts of transit to lessen private car travel in the core. And buildings are being razed galore to provide a distributor, which can only mean more cars in the downtown area.

**I**N this connection Lawrence Wingerter, past president of ATA, declared that New York, with a "good public transit," has been spending millions on new buildings downtown, while Los Angeles, depending on private-autos-only freeways, has not spent a dime downtown, except for Hotel Statler. So downtown decays by default!

Ohio is going on an expressway spree. Detroit will eventually spend \$800,000,-

000 for expressways. Boston proposes to spend \$257,000,000 for this, as Walter H. Blucher, eminent city planner, states, "I am willing to stake my reputation . . . that . . . expressways will not solve the traffic and transportation problems of any community . . . They will, in a number of communities, encourage the decentralization of the central areas."

Baltimore's experience has been sad. Funds are provided for parking and expressways, to the detriment of mass transportation.

No provision is made to disperse excess traffic. But the transit people find a measure of comfort in the employment by the city of Henry A. Barnes, noted traffic engineer. Only a few civic outfits have shown passive interest in the problem.

"Our only hope," a transit official told me, "is that in the near future responsible civic leaders will recognize . . . that every segment of our economy has much at stake in maintaining profitable, privately owned mass transportation as a means of preventing the doom of downtown areas."

**N**IAGARA FRONTIER TRANSIT has been partially successful in interesting Buffalo merchants in validating tokens, but not on a continuing basis. For fifteen days before Thanksgiving and Easter riders who spend \$1.95 at certain stores ride "home free."

Niagara Falls and Buffalo merchants joined forces to give free rides for special sales. Last fall 39,000 free rides ensued on the fifth trial of the plan.

NFT also uses public address systems at sports events urging use of buses. These are noble efforts, but their sporadic application could not hope to stem the tide of five-days-each-week which pours in and

### Professional Responsibility

*"... a department store can divide itself into as many branches as it can establish without giving up the original store downtown. But a professional specialist, as a general rule, can do business only in one office, and must make a definite decision where he wants to operate."*



out of town. They are only presented as demonstrating transit is trying hard to keep its head above that tide, almost everywhere.

In Richmond, with over 50 per cent of its lines sometimes running in the red, Virginia Transit reports it has "educated quite a few people" along the lines of transit thinking, as a result of sales promotion and public relations work. The city engineer seems sympathetic, and the *Times-Dispatch* and chamber of commerce are understanding of the problem.

**G**EORGE GOODWIN, executive director of the Central Atlanta Improvement Association, seems to have interested a citizens' committee in co-operative tackling of Atlanta's traffic quandary.

The full committee meets monthly, with American Bar Association, Atlanta Lawyers' Club, and the Municipal Planning Board members among those actively present. The accent is on "accessibility."

"Unless transit is accorded the status of public concern equal to that of streets and parking, no city can approach the matter of access as the three-headed proposition it is," says Goodwin, decrying "unwise decentralization," hoping to solve the question in the "democratic way," rather than

having to bludgeon it through. It is a hopeful sign.

In Spokane the *Daily Chronicle* recently rendered a "fine public service, given by a fine newspaper," according to "Clip Sheet." Covering twenty-eight far western cities, it found "common problems in mass transportation." A few examples follow:

The city opposes raising San Francisco's subsidized system's fare. It wants to raise taxes, in the face of almost \$4,000,000 deficit, equaling \$5 per capita, including infants!

Merchants in San Diego petitioned council to ban downtown parking, as business slumped. In Portland a "general property tax" to subsidize transit, under the guise of a "service charge," seems imminent.

Long Beach cut bus fares, but had to abandon the 5-cent one-mile fare after nine months. Subsidy is in the air as the city fights fare increase.

**W**ILL cities welcome the chance to grab transit? Here are three replies: Phoenix has a private and public system competing. "Metropolitan officials aren't saying so, but the feeling persists

## PUBLIC UTILITIES FORTNIGHTLY

in informed circles they would be more than happy to unload the public property at a good, or even a fair price."

Tacoma transit is reported ready to quit, "but sympathetic council members actually turn green at the thought of having to acquire the system."

Vancouver has the right to buy British Columbia Electric Railway, but has not exercised the privilege, in the face of a \$1,350,000 deficit.

From these experiences any city daring to seize a system would have to be headed by foolish men, or have no alternative. Something like that may yet come out of the recent 52-day strike in Washington, D. C., which was broken only when the city by act of Congress agreed to make up deficit operations for the current year.

Municipal operation is not the answer. More parking space downtown adds tumult to confusion, as do expressways and unlimited travel by private cars. Rapid transit is only rapid outside the periphery; once it reaches the perimeter of the city core it is tortoise transit, unless it takes to tunnels or elevated rails. Tax adjustments for transit may increase earnings or avert losses, temporarily. But they will not add riders so long as private cars have unrestricted access to downtown.

Railing at suburban shopping centers is baying at the moon. These centers should be called buying centers. Shopping is not just buying. Shopping means examination of merchandise, comparison of values and prices, feeling and knowing you have a choice in spending your money. This choice is very limited at such centers. Usually there is but one store of a kind, outside of food markets.

Thus, disintegration of downtown might have a most unwholesome effect on brands, as such. Do holders of these invaluable copyrights realize this? Should they include themselves in "all downtown interests," which the New York Downtown Idea Exchange avers "*Simply must* focus more attention, more brains, and more money on public transit."

From the few examples listed here, from thousands available, in all the worthy actions and ideas, transit is almost unanimously ignored, except to admit grudgingly, in some instances, that it is necessary.

THIS cannot go on indefinitely without cities cracking at their seams. They must decide to restrict private cars in prescribed areas or abandon mass transit. The problem is so simple as to be "abecedary"; the answer can be constructive or destructive of downtown.

For city streets, 8 per cent of all highways, carry 66 per cent of the nation's traffic. Eighty-one million autos are forecast by 1965, a more than 20,000,000 increase in ten years.

Too, 70 per cent of all autos are owned by urban dwellers. Obviously, our streets will be called upon to carry about 14,000,000 more cars than today, when all agree they are grievously overburdened.

Abandon mass transit; give the city over to private cars; let them run rampant downtown; *automatically*, if you will excuse the pun, downtown will become parktown; transit and downtown will share a common grave, while countless mourn, but alas; too late!

Or, save transit and you save downtown!



## Economics of the Transit Operating Ratio

*There has been a noticeable trend toward an operating ratio as a basis for fixing fares for transit companies. A relatively small rate base investment (as compared with gas, electric, and telephone utilities) in relation to the heavy volume of expenses, payrolls, vehicle maintenance, and supplies, etc., has made it difficult for transit companies to attract investment capital on the conventional return-on-rate-base formula.*

By CHARLES W. KNAPP\*

**I**N view of the increasing importance of the concept of the operating ratio in any discussion of the economics of the local transit industry, it will not be amiss to preface this article with a definition of the concept. In nontechnical language, the term "operating ratio" means the ratio of the aggregate of operating expenses to the aggregate of operating revenue. As used herein, the term "operating expenses" includes income and all other taxes. It may

hardly be necessary to point out that an *increase* in operating ratio may result quite as well from a *decrease* in operating revenue as from an *increase* in operating expense, although, of course, not necessarily in exactly the same proportion for a change of equal amount in revenue or expense, as indicated in Table I, page 469.

Thus, in this discussion of the economics of the transit operating ratio, attention will be given to economic factors contributing both to declines in operating revenue and increases in operating expense.

\*Accounting consultant, resident in West Hartford, Connecticut. For additional personal note, see "Pages with the Editors."



## PUBLIC UTILITIES FORTNIGHTLY

### *Decline in Volume of Transit Traffic*

**I**T may truly be stated that the local transit industry is engaged in a struggle for survival in the death grip of what may be characterized as the "normal-trend decline" in volume of traffic. Exactly what is the significance of the term "normal trend" as applied to a decline? Ordinarily, one is accustomed to use of the term as applying to growth rather than decline. Thus, to cite but a few illustrations, references to the normal trend in the growth of the population, in national income, in volume of sales, and in productivity of labor are commonplace.

Peculiarly enough, however, it is these very same growth trends in other areas of the economy along with which, since 1946, there has been occurring year by year in the local transit industry successive average declines of from 7 to 8 per cent in the number of revenue passengers carried. It is not a case of the industry's holding its own while growth is being manifested in other areas all around it. The fact is that with each passing month and year the local transit industry is significantly losing ground in a struggle in which its very existence is at stake.

It need hardly be mentioned that the lifeblood of the industry is the revenue obtained from fare-paying passengers and it is these fare-paying passengers who each year, at the alarming rate of from 7 to 8 per cent of their diminishing number, are turning to other means of transportation, thereby substantially sapping the life-sustaining revenue of the local transit industry.

Yet, in spite of the adverse effects of the normal-trend decline in volume of traffic, transit operating revenue has not reflected continuous declines since 1946.

On the contrary, annual operating revenue of the industry increased more than \$116,000,000 between 1946 and 1953, although reflecting a decline of \$41,300,000 in 1954. It is rather that the increases in annual operating revenue—brought about by increased fares which have tended to somewhat more than compensate for successive annual declines in volume of traffic—have failed to keep pace with increased operating expenses, thus reflecting losses in traffic which have prevented realization of the full potentialities of the increases in rates of fare placed into effect during the 7-year period. Table II (page 469) shows how increased operating expenses and taxes have kept abreast of increased operating revenue since 1946.

There are presented in Table III (page 469) certain statistics relative to the transit industry's volume of traffic as compiled by the American Transit Association. From a total of 13,603.8 millions of revenue passengers carried on transit lines of the United States in 1929, there was a decline to the depression low of 9,105.6 millions by 1933. From a total of 10,503.7 millions in 1940, there were annual increases attributable to war production activities which increased the number of revenue passengers to a peak total of 19,119 millions in 1946. Since that year continuous annual declines in revenue passengers carried have occurred, ranging from as low as 4.35 per cent to as high as 11.91 per cent. The percentages of annual declines during the five years 1950-54 were 9.22 per cent, 6.96 per cent, 6.67 per cent, 8.20 per cent, and 10.67 per cent, respectively.

**I**N Table IV (page 471) are presented annual transit traffic index figures com-

## ECONOMICS OF THE TRANSIT OPERATING RATIO

TABLE I  
INCREASE IN OPERATING RATIO RESULTING FROM EQUAL DECREASE  
IN REVENUE OR INCREASE IN EXPENSE

	Original Operating Ratio	Operating Ratio Resulting from Decrease In Revenue	Increase In Expense
(1) Operating Revenue .....	\$1,000,000	\$900,000	\$1,000,000
(2) Operating Expense .....	\$ 880,000	\$880,000	\$ 980,000
(3) Operating Ratio (2) + (1)	88.0%	97.8%	98.0%

TABLE II  
TREND OF TRANSIT OPERATIONS  
YEARS 1946 TO 1954, INCLUSIVE

Year	Operating Revenue (Thousands)	Operating Expenses and Taxes (Thousands)	Operating Income (Thousands)
1946 .....	\$1,397,100	\$1,258,450	\$138,650
1947 .....	1,390,800	1,343,680	47,120
1948 .....	1,488,600	1,444,861	43,739
1949 .....	1,490,900	1,427,235	63,665
1950 .....	1,452,100	1,385,731	66,369
1951 .....	1,472,700	1,426,612	46,088
1952 .....	1,501,300	1,471,551	29,749
1953 .....	1,513,100	1,468,760	44,340
1954 .....	1,471,800	1,429,940	41,860

Source of data: *Transit Fact Book*, 1953 and 1954 editions, published by the American Transit Association; 1954 data obtained prior to publication.

TABLE III  
TREND OF REVENUE PASSENGERS  
REVENUE PASSENGERS CARRIED ON TRANSIT LINES OF THE  
UNITED STATES DISTRIBUTED BY TYPES OF SERVICE  
YEARS 1929, 1933, AND 1940 THROUGH 1954

Year	Railway Surface, Subway, and Elevated		Trolley Coach and Motorbus		Grand Total	
	Number Of Revenue Passengers (Millions)	Per Cent Decline from Preceding Year (1947-54)	Number Of Revenue Passengers (Millions)	Per Cent Decline from Preceding Year (1947-54)	Number Of Revenue Passengers (Millions)	Per Cent Decline from Preceding Year (1947-54)
1929 .....	11,299.0		2,304.8		13,603.8	
1933 .....	7,254.9		1,850.7		9,105.6	
1940 .....	6,464.4		4,039.3		10,503.7	
1941 .....	6,574.4		4,727.1		11,301.5	
1942 .....	7,588.7		6,912.5		14,501.2	
1943 .....	9,410.0		8,508.0		17,918.0	
1944 .....	9,652.5		9,082.9		18,735.4	
1945 .....	9,636.0		9,345.9		18,981.9	
1946 .....	9,454.0		9,665.0		19,119.0	
1947 .....	8,589.0	9.15%	9,698.0	(Increase)	18,287.0	4.35%
1948 .....	7,213.0	16.02	10,099.0	(Increase)	17,312.0	5.33
1949 .....	5,683.0	21.21	9,568.0	5.26%	15,251.0	11.91
1950 .....	4,903.0	13.73	8,942.0	6.54	13,845.0	9.22
1951 .....	4,212.0	14.09	8,669.0	3.05	12,881.0	6.96
1952 .....	3,696.0	12.25	8,326.0	3.96	12,022.0	6.67
1953 .....	3,306.0	10.55	7,730.0	7.16	11,036.0	8.20
1954 .....	2,820.0	14.70	7,038.0	8.95	9,858.0	10.67

Source of data: American Transit Association.

## PUBLIC UTILITIES FORTNIGHTLY

piled by the American Transit Association for the years 1946 to 1954, inclusive. The traffic index has been constructed with the years 1936 to 1940 as the base period, and the percentages of annual decline have been derived from the index figures. Since the basic data consist of statistics on the total number of passengers carried, the annual percentage declines in passengers carried differ somewhat from the annual percentage declines shown in Table II which pertain to revenue passengers carried only. In general, it is indicated in Table III that since 1949 the annual declines in volume of traffic have been more severe in the case of cities having populations of less than 250,000 than in cities of larger size. Similarly, cities having populations of from 250,000 to 1,000,000, in general, have suffered greater declines in traffic than cities having populations of over 1,000,000. This situation is in accord with what one might expect, inasmuch as the denser the population, the more likely it is that public transportation will be the most convenient available means of transportation. Nevertheless, the annual declines in traffic are impressive for cities of all population groups, indicating that the problem of the normal-trend decline in volume of traffic is one which confronts the entire transit industry.

**I**T is a truism that in no industry can a company continue for very long to operate at less than a reasonable profit, and certainly not at a loss, if it is to achieve survival. Under ordinary circumstances the remedy is to increase prices, which, in the case of a public utility, means to increase rates.

However, in the case of the transit industry, studies have shown a tendency for

the existence of a constant relationship between the percentage of increase in average rate of fare, and the resultant percentage of decrease in number of fare-paying passengers carried which is attributable to passenger resistance to the fare increase. It has come to be a generally accepted rule of thumb that, by and large, for every one per cent of increase in average rate of fare there occurs a related decline of one-fourth of one per cent or thereabouts in the number of revenue passengers carried. Thus, if an increase in average rate of fare is 20 per cent, the anticipated resulting decline in revenue passengers carried which is attributable to such fare increase will be of the magnitude of 5 per cent. Granted that without an increase in rates of fare a transit company cannot long survive, if its operations are being conducted at less than a reasonable profit, and certainly not if they are being conducted at a loss, it must also be granted that a transit company cannot assure its survival in such case solely by the expedient of increasing its rates of fare. For sooner or later a transit company's fares, by continued resort to this expedient, will be increased to the point where the company may not only be in danger of pricing itself out of business, but may actually accomplish this suicidal result. This is the dilemma which confronts the industry today—a dilemma which does and should cause grave concern to the industry, to regulatory bodies all over the country, and to all thinking people.

### *Increase in Transit Operating Expense*

**U**NDER the impact of the rising tide of inflation which occurred following the end of World War II, all types of pub-

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TABLE IV  
ANNUAL TRANSIT TRAFFIC INDEX FOR CITIES IN UNITED STATES  
OF VARIOUS POPULATION GROUPS  
FOR YEARS 1946-54  
(1936-40 = 100)

Year	United States		Cities Population Over 1,000,000		Cities Population 250,000 to 1,000,000		Cities Population Less than 250,000	
	Index	% Decline*	Index	% Decline*	Index	% Decline*	Index	% Decline*
1946	179.86		138.34		198.60		270.65	
1947	173.46	3.56%	135.25	2.23%	189.58	4.54%	263.39	2.68%
1948	164.44	5.20	127.96	5.40	180.50	4.79	250.23	5.00
1949	146.28	11.04	113.88	11.00	161.51	10.52	220.26	11.98
1950	132.71	9.28	105.18	7.64	145.03	10.20	197.05	10.54
1951	124.09	6.50	98.13	6.70	136.27	5.97	183.47	6.89
1952	116.35	6.24	94.61	3.59	125.37	8.00	169.06	7.85
1953	106.99	8.04	88.70	6.25	114.74	8.48	151.55	10.36
1954	95.36	10.87	81.01	8.67	101.85	11.23	130.03	14.20

\*Per cent decline from preceding year.

Source of data: American Transit Association.



TABLE V  
COMBINED EFFECT OF NORMAL-TREND DECLINE IN VOLUME OF TRAFFIC  
AND INCREASES IN OPERATING EXPENSES DUE TO INFLATIONARY  
FORCES IN TRANSIT OPERATIONS

	Operating Revenue	Operating Expenses*	Operating Income
At beginning of two-year period	\$100.00	\$90.00	\$10.00
Decrease in revenues due to 5 per cent normal-trend decline in volume of traffic in first year	-5.00		-5.00
Effect of two successive increases of 5 per cent in oper- ating expenses due to inflationary forces		+9.225	-9.225
Rate increase granted at beginning of second year	+7.60**		+7.60
Total	\$102.60	\$99.225	\$ 3.375
Per cent of operating revenue in second year	100.00%	96.72%	3.28%

\*Inclusive of taxes.

\*\*Computation of increase in operating revenue due to  
rate increase:

Level of operating revenue at beginning of second year, as above	\$ 95.00
Add—rate increase, at 20 per cent	19.00
	\$114.00

Deduct—

Assumed 5 per cent normal-trend decline in volume of traffic in second year	\$ 5.70
Assumed decline in revenue due to passenger resistance to rate increase —one-quarter of 1% x 20%, or 5% x \$114	5.70
	\$ 11.40

Estimated level of operating revenue at end of second year	\$102.60
Estimated level of operating revenue at end of first year	95.00
Estimated net increase in operating revenue due to rate increase	\$ 7.60



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lic utilities experienced substantial increases in operating expenses. These increases occurred not only as the result of increased wage rates of public utility employees but also as the result of inevitable increases in the cost to public utility companies of materials, supplies, and equipment attributable to the inflationary effect on commodity prices of successive wage increases in all other segments of the economy. Since, in the case of the transit industry, such increases in operating costs have been accompanied by constant downward pressure upon the level of operating revenue attributable to the normal-trend decline in volume of traffic previously referred to, it becomes apparent that for the local transit industry the long-term trend in the ratio of operating expenses to operating revenue can be in only one direction—upwards. Table V (page 471) is presented to illustrate the effects of these two factors on transit operations.

**I**N Table V it is shown that within a period of two years, during which there were experienced annual normal-trend declines of 5 per cent in volume of traffic, successive annual increases of 5 per cent in operating expenses, and the granting of a rate increase of 20 per cent at the beginning of the second year, the operating ratio (that is, the ratio of operating expenses and taxes to operating revenue) has increased from 90 per cent to 96.72 per cent, with the result that in the second year only \$3.28 of each \$100 of revenues taken in annually was available for interest and dividends as compared with \$10 of each \$100 at the beginning of the two-year period. This phenomenon of the increasing operating ratio is a symptom of financial weakness in local

transit operations which will never be overcome so long as the industry remains in the grip of the normal-trend decline in volume of traffic, quite apart from the effects of past or possible future inflationary forces on operating expenses.

Although the latter forces have been held in restraint by factors creating more or less of a plateau in over-all wholesale commodity price levels during the past four years or more, the continuation of wage increase demands within the transit industry, if successful, must inevitably give rise to further increases in rates of fare. In the long run, irrespective of their proven justification, the continuation of successive fare increases with their attendant acceleration of the downward pressure on operating revenue due to passenger resistance, combined with that due to the normal-trend decline in volume of traffic, will result in nothing less than bankruptcy of the industry.

**A**s shown in Table VI (page 473), the high proportion of operating revenue absorbed by salaries and wages—reflecting the fact that wage rates and aggregate payrolls in the industry have increased in each year since 1947, despite the annual declines in total employment in the industry since that year of peak employment—supplies the principal reason for the volatility of operating expenses, and one of the major reasons why, in spite of frequent fare increases, the operating revenue of the transit industry barely manages to maintain a lead over operating expenses and taxes. For 1954, payrolls of the transit industry were reported as equal to 60.8 per cent of operating revenue, as compared with 56.8 per cent for 1947, this increase in the proportion of operating revenue ab-

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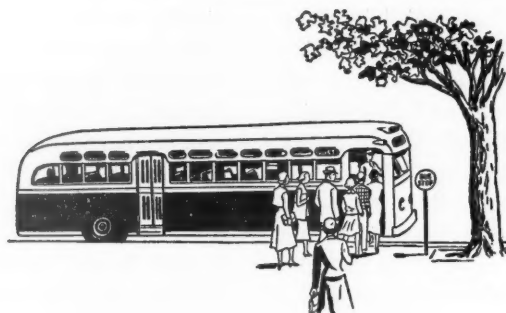


TABLE VI  
NUMBER OF EMPLOYEES AND PAYROLLS OF THE TRANSIT INDUSTRY  
AND PER CENT OF PAYROLLS TO OPERATING REVENUE  
YEARS 1947 TO 1954, INCLUSIVE

Year	Operating Revenue (Thousands)	Average Number Of Employees	Payroll (Thousands)	Average Annual Earnings Per Employee	Payroll as Per Cent Of Operating Revenue
1947 .....	\$1,390,800	266,000	\$790,000	\$2,970	56.8%
1948 .....	1,488,600	261,000	829,000	3,176	55.7
1949 .....	1,490,900	253,000	841,000	3,324	56.4
1950 .....	1,452,100	240,000	835,000	3,480	57.5
1951 .....	1,472,700	232,000	872,000	3,760	59.2
1952 .....	1,501,300	227,000	903,000	3,978	60.1
1953 .....	1,513,100	220,000	913,000	4,150	60.3
1954 .....	1,471,800	211,000	895,000	4,240	60.8

Source of data: *Transit Fact Book*, years 1953 and 1954, published by the American Transit Association; 1954 data obtained prior to publication.

sorbed by wage costs having occurred simultaneously with a decrease of 20.7 per cent in total number of employees in the industry.

In contrast with the transit industry, the electric utility industry's aggregate of the combined costs of wages, fuel, and other expenses (electric department only, exclusive of depreciation and taxes) declined from 52.84 per cent of gross revenue in 1947 to 49.54 per cent in 1953. In the telephone industry, as represented by the Bell system, according to a recent survey of that industry by Standard & Poor's, wage costs which were 46 per cent of gross revenue in 1945, were 49 per cent in 1949,

45 per cent in each of the years 1950 to 1952, inclusive, and 44 per cent in 1953.

It should be of interest to compare the trends of operating ratios in the telephone, electric utility, and transit industries since 1940. Such comparison, which is presented in Table VII (page 475), reveals the serious turn for the worse taken by the transit industry since the end of World War II—a situation particularly more adverse to the transit industry because the operating ratio for the transit industry was already substantially in excess of that for both the telephone and electric industries as far back as 1940.

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The precarious financial situation of the transit industry is revealed in sharp focus by comparison of the margin between average net operating income and the break-even point of that industry with the telephone and electric utility industries. In Table VIII (page 477) are set forth operating results of the three industries averaged for the 7-year period from 1947 to 1953 (6-year period for the telephone industry). With average operating ratios of 89 per cent for telephone, 81.8 per cent for electric, and 96.7 per cent for transit operations, the resulting ratio of net operating income to operating revenue averaged 11 per cent for telephone, 18.2 per cent for electric, and 3.3 per cent for transit. In terms of the percentage relationship to total operating expenses and taxes, net operating income averaged 12.36 per cent for telephone, 22.25 per cent for electric, and 3.41 per cent for transit. The latter comparison indicates that the margin between average net operating income and the break-even point of the telephone industry is 3.6 times as great as that for the transit industry and, similarly, for the electric utility industry is 6.53 times as great as that for the transit industry. Viewed from the standpoint of the transit industry alone, an increase of no more than 3.41 per cent in its operating expenses and taxes, or a corresponding decrease in operating revenue, would reduce its results of operations to a break-even basis.

### *Operating-ratio versus Rate-of-return Approach to Regulation of Transit Utilities*

THE "return" earned by a utility company is customarily regarded as the amount of income available for interest and dividends, and for addition to surplus,

after meeting all expenses of operation including depreciation, income taxes, and other taxes. The "rate of return" expresses the percentage relationship of the "return" as defined in the preceding sentence to a "rate base." Thus, if the rate base equals \$1,000,000 and the return is \$60,000,000, then the rate of return equals 6 per cent. The "rate base" constitutes the utility's investment in physical plant and property which is used to provide the particular type of service furnished by the utility, less applicable reserves for depreciation and amortization. In addition to the physical plant and property, under ordinary circumstances, the rate base will include an allowance for required investment in materials and supplies plus a further allowance for required cash working capital.

However, some public service commissions in recent years have refused to recognize the inclusion in the rate base of an allowance for cash working capital on the ground, in the case of transit companies, that revenues are collected in cash at or before the time of rendering the service, and, in the case of other utilities, that accruals for federal income taxes not payable until a subsequent year provided all the required cash working capital.

IT is becoming more and more widely recognized that a different measure of fair return than that predicated on a rate of return applied to a rate base is required in the case of the local transit industry because of factors peculiar to this industry which differentiate it from, for example, the telephone and electric utility industries.

One of these factors, which is to a somewhat greater extent applicable to bus com-

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panies than to street railway companies, is the relatively smaller investment in plant and property required in relation to annual operating revenue, than is true of the other types of utilities mentioned. As shown by the data in Table IX (page 477), the net investment in plant per dollar of operating revenue for telephone and electric utilities, is roughly two and three times, respectively, greater than for transit companies. If bus companies only are considered in such comparison, the net investment in plant per dollar of operating revenue for telephone and electric utilities is approximately four and six times, respectively, greater than for transit companies.

The significance of these relationships is that in the transit industry, annual operating revenue tends to range from \$1 to \$2 and a fraction (the higher figure pertaining to bus operations) per dollar of net investment in plant, whereas in the

telephone and electric utility industries annual operating revenue is equal, roughly, to only 50 cents and 33½ cents, respectively, per dollar of net investment in plant. This more rapid turnover of investment in the transit industry subjects the investment to greater risk, for in the process of turnover the forces that may operate to increase operating expenses or decrease operating revenue affect a relatively greater number of dollars compared to the net investment.

**S**ECONDLY, the relatively smaller amount of investment required in the transit industry per dollar of annual operating revenue tends to make it inequitable for the return in that industry to be measured by the percentage relationship of net operating income to the net investment in plant and property, in accordance with the traditional rate-making formula employed



TABLE VII  
OPERATING RATIOS OF THE TELEPHONE, ELECTRIC UTILITY,  
AND TRANSIT INDUSTRIES  
YEARS 1940 TO 1953, INCLUSIVE

<i>Year</i>	<i>Telephone Utilities(A)</i>	<i>Electric Utilities(B)</i>	<i>Transit Industry(C)</i>
1940 .....	80.9%	71.5%	89.7%
1941 .....	82.1	74.8	88.9
1942 .....	85.1	77.1	86.4
1943 .....	86.1	78.3	86.5
1944 .....	87.6	78.4	88.2
1945 .....	86.5	77.5	89.2
1946 .....	88.1	78.4	90.1
1947 .....	91.5	81.1	96.6
1948 .....	90.1	82.9	97.1
1949 .....	89.5	81.3	95.7
1950 .....	86.8	81.4	95.4
1951 .....	88.0	82.6	96.9
1952 .....	88.1	81.8	98.0
1953 .....	Not Available	81.5	97.0

Source of data: (A) Class A telephone companies from statistics published by the Federal Communications Commission.

(B) Class A and class B electric utilities from statistics published by the Federal Power Commission.

(C) Transit industry from statistics compiled by the American Transit Association; for the year 1954 the transit industry's operating ratio was 97.2 per cent.



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for other utility industries having a relatively smaller annual turnover of investment. This is because the traditional formula fails to recognize the greater risk inherent in operations of the transit industry as a consequence of the relatively high annual turnover of its investment.

Finally, due to the smaller investment per dollar of annual revenue required in the transit industry, together with the relatively shorter life of equipment used by it in the furnishing of service, the rate base, particularly of the smaller transit companies, tends to be characterized by volatility, rather than by the relatively greater stability of the net investment in plant of other types of utilities. Moreover, the other types of utilities are characterized by growth due to expansion in number of customers served, whereas since 1947 the transit industry has been characterized by successive annual declines in number of passengers carried, with the resultant tendency of the trend of net investment in plant to be upward for other utility industries and downward for the transit industry, as indicated in Table X (page 478).

**I**N recognition of the fact that what constitutes a fair return of a transit company should properly be determined from the standpoint of the size of the margin between income and expense and not from the standpoint of the size of the investment represented by the rate base, regulatory bodies charged with the responsibility of regulation of transit utilities are turning more and more to the theory that for such utilities the operating ratio is the only reliable guide or tool for use in the determination of a fair and reasonable return. Thus, whether the return measured in

terms of a percentage relationship to a rate base is high or low, a transit utility is afforded a measure of protection based on a practical and down-to-earth consideration if it is permitted to enjoy an operating ratio of 90 per cent plus or minus one or two percentage points, after provision for all operating expenses, including depreciation and taxes. For a transit utility to seek a return predicated on investment—that is, under the rate-of-return theory, which is higher than that to which it would reasonably be entitled under the operating-ratio theory—would simply result in accelerating the reduction in volume of traffic due to the higher rates or fare required to produce such a return. On the other hand, there may be many instances in which the rate-of-return theory would result in rates of fare which would produce less than the minimum return to which a transit company would be entitled under the operating-ratio theory.

**O**UR regulatory authorities are deeply conscious of their responsibility both to the transit industry and to the riding public and are aware of the serious situation confronting the industry. It is reasonable to assume that they will do everything within their power to be of assistance and encouragement to the industry as it seeks out possible avenues of survival. However, if regulatory bodies should encourage the industry to seek increases in fares to the point of diminishing returns, they would be performing a vast disservice to both the industry and the public. Applications for, and the granting of, further fare increases will be inevitable, but with each increase the industry will find itself more deeply imbedded in a morass from which it may not have the power, nor

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TABLE VIII  
COMPARATIVE OPERATIONS OF THE TELEPHONE, ELECTRIC UTILITY,  
AND TRANSIT INDUSTRIES AVERAGED FOR  
YEARS 1947 TO 1953, INCLUSIVE

	Telephone Utilities	Electric Utilities <i>Average: Years 1947-53</i>	Transit Industry
Operating Revenue .....	100.00%	100.00%	100.00%
Operating Expenses and Taxes .....	89.00*	81.80	96.70
Net Operating Income .....	11.00%	18.20%	3.30%
Net Operating Income as Per Cent of Op- erating Expenses and Taxes .....	12.36%	22.25%	3.41%
Times Net Operating Income as Per Cent of Net Operating Expenses and Taxes of Transit Industry .....	3.6	6.53	1.0

\*Average: Years 1947-52.

Source of data: Operating ratios for years 1947-53 set forth in Table VII.



TABLE IX  
CHARACTERISTICS OF PLANT INVESTMENT VERSUS OPERATING REVENUE  
OF THE TELEPHONE, ELECTRIC, AND TRANSIT UTILITY INDUSTRIES  
YEAR 1952 (FOR LARGE BUS COMPANIES, 1951)

Year	Gross Investment in Utility Plant At End Of Year (Millions)	Net Investment in Utility Plant At End Of Year (Millions)	Operating Revenue (Millions)	Investment Per Dollar Of Revenue Gross	Net
1952 Telephone Utilities(A) ...	\$ 12,609	\$ 9,197	\$ 4,229	\$2.98	\$2.17
1952 Electric Utilities(B) .....	\$ 25,729	\$ 20,624	\$ 6,549	\$3.93	\$3.15
1952 Transit Companies(C)		(Thousands)	(Thousands)		
10 Large Transit Companies .....		\$230,177**	\$266,699		\$ .86
20 Medium-sized Transit Companies ...		\$ 66,660**	\$ 66,568		\$1.00
1951 Large Bus Companies					
The Connecticut Company .....		\$ 6,535	\$ 10,711		\$ .61
Eastern Massachusetts Street Railway Co.		4,208	11,524		.37
National City Lines, Inc. ....		16,341**	30,770		.53
New York City Omnibus Corp. ....		13,527	23,859		.57
United Transit Co.* .....		11,699	24,051		.49
Total and Average .....		\$ 52,310	\$100,915		\$ .52

\*Some trolley coaches, but predominantly buses.

\*\*Exclusive of intangibles.

Note: Large transit companies include only companies having annual operating revenue in excess of \$10,000,000; medium-sized transit companies include only companies having annual operating revenue of from \$1,000,000 to \$10,000,000. The large bus companies which are individually listed above (other than The Connecticut Company and United Transit Company) are included in the group of ten large transit companies. The remaining seven of the ten large companies consist of Baltimore Transit Co., Capital Transit Co., Cincinnati Transit Co., Los Angeles Transit Lines, The Omnibus Corporation, Philadelphia Transportation Co., and St. Louis Public Service Co.

Source of data: (A) Class A telephone companies from statistics published by the Federal Communications Commission.

(B) Class A and class B electric utilities from statistics published by the Federal Power Commission.

(C) Data compiled from Moody's Investors Service.

# PUBLIC UTILITIES FORTNIGHTLY



TABLE X  
COMPARATIVE DATA ON NUMBER OF CUSTOMERS AND NET PLANT  
INVESTMENT OF TELEPHONE, ELECTRIC, AND TRANSIT UTILITIES  
YEARS 1940, 1945, 1950, AND 1952

Year	Telephone Utilities(A)	Electric Utilities(B)	Transit Industry(C)
	Company Telephones (Thousands)	Electric Customers (Thousands)	Revenue Passengers (Millions)
1940 .....	18,971	25,511	10,504
1945 .....	24,307	28,142	18,982
1950 .....	38,037	35,147	13,845
1952 .....	41,888	39,119	12,022

## NET INVESTMENT IN UTILITY PLANT

Year	Telephone Utilities(A)	Electric Utilities(B)	6 Large Transit Companies(D)
	(Millions)	(Millions)	(Thousands)
1940 .....	\$3,634	\$12,494	\$241,899
1945 .....	3,890	11,426	214,354
1950 .....	7,723	17,056	191,275
1952 .....	9,197	20,624	168,444

Note: The six large transit companies consist of Capital Transit Co., Cincinnati Transit Co. (formerly Cincinnati Street Railway Co.), Eastern Massachusetts Street Railway Company, Los Angeles Transit Lines, Philadelphia Transportation Co., and St. Louis Public Service Co.

Source of data: (A) Class A telephone companies from statistics published by the Federal Communications Commission.

(B) Class A and class B electric utilities from statistics published by the Federal Power Commission.

(C) Transit industry from statistics compiled by the American Transit Association.

(D) Six large transit companies from data published by Moody's Investors Service.

ultimately the will, to extricate itself.

IN November of 1952, a special committee of the National Association of Railroad and Utilities Commissioners submitted to the annual convention of the association, a report on "Principles of

SEPTEMBER 29, 1955

Rate Regulation in the Bus Industry." In this report, the committee stated that, based on its study of the legality of the use of the operating-ratio theory of rate making, there were 43 states in which it would be permissible under the state laws and statutes to use the theory to test the

## ECONOMICS OF THE TRANSIT OPERATING RATIO

revenue requirements of bus companies. In its report the committee noted that with respect to intercity bus carriers as a group, the Interstate Commerce Commission (Investigation of Bus Fares, ICC Docket No. MC-C-550, Proposed Report, later approved by the commission) gave its approval of an operating ratio before normal federal income taxes of 85 per cent, and that such ratio is equivalent, under the presently prevailing tax level, to a ratio of 83 per cent before taxes, or 90 per cent to 92 per cent after taxes.

THE committee also noted in its report that an argument against the operating-ratio theory is that, in effect, a return is being allowed on expenses. Its reply to this contention was that where the term "operating expenses" is used it should be construed as meaning justified and reasonable expenses.

In the words of the Massachusetts Department of Public Utilities:

If it is to maintain its financial position we believe and hold that a utility whose operations are as volatile as those of the respondent must maintain a margin between income and expense sufficient so that tomorrow's fluctuation will not result in its carrying on business at a loss.

Such a consideration has little to do with the question of the amount of the investment in utility operating

plant, as it is a function of the size of the income, not of the size of the investment.<sup>1</sup>

The above statement would have been equally forceful if the words "operating expenses" had been employed in lieu of the word "income" in the last sentence.

A REAL service could be rendered to the local transit industry by its individual representatives and industry committees through institution of a program for the gathering of evidences of the more and more widespread use of the operating-ratio theory in the regulation of transit utilities, consisting of copies of orders demonstrating its applications as they are handed down by regulatory bodies, digests of which might then be circulated periodically to the individual members of every local transit regulatory body in the country.

This might be supplemented by circularizing in the same manner reprints of articles appearing in various publications which add further to the growing weight of opinion among responsible individuals who are competent to express judgment on the matter that the operating-ratio theory should supplant the outmoded rate-of-return theory as a guiding principle in the regulation of rates of local transit utilities.

<sup>1</sup> Re Eastern Massachusetts Street R. Co. (Mass 1952) 95 PUR NS 33.

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*"GOVERNMENT power should be taxed equally with the investor-owned utility industry. Such taxation would end forever the myth that government power is cheap."*

—JAMES B. BLACK,  
President, Pacific Gas and Electric  
Company.



## A Pattern of Co-ordination, Transit—Traffic

*Transit people will generally agree that the main problem of retaining profitable operations in the average large city is to curb the double-barreled competition of private automobile passenger transportation and the indiscriminate downtown parking of these automobiles which interfere with satisfactory streetcar and bus schedules. But like the proverbial problem of "belling the cat," the solution is more obvious in principle than practical in application. This article tackles this knotty problem.*

By GERALD J. GLASSMAN\*

**I**N the Washington, D. C., metropolitan area, as in most large metropolitan areas, increasing traffic congestion in the central business district is making movement of persons more difficult and more expensive. As a result, there is a decline in trade in this "central city" and a tendency for commercial enterprises to decentralize.

A brief analysis of the causes of the traffic congestion will show that it can be expected to worsen to the point of paralysis unless proper remedial measures are

taken, and that many of the measures now being taken are making the matter worse instead of better.

Can this problem be solved at reasonable cost by the allocation of existing transportation facilities, street, highway, and parking, to their most efficient and economical use, with a minimum construction of additional facilities, still leaving sufficient flexibility to accommodate significant changes in land use which may be brought about through decentralization? The method would be, briefly, to limit private auto use in peak hours by limiting availability of street space, and of central city parking for private autos,

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## A PATTERN OF CO-ORDINATION, TRANSIT—TRAFFIC

and to give mass transit the greater comparative attraction of speed through unimpeded movement, and economy through speed plus a large volume of riders. In principle, this is far from a new proposal. It has been partially tried in New York, Philadelphia, and elsewhere. What is really needed, which would be new, would be a practical and systematic application of a series of steps towards the objective of co-ordinated traffic-transit control.

### *The Problem*

**I**N posing the problem that must be solved, we can recognize that clearing traffic congestion is necessary in itself. True, one result of traffic congestion, the trend toward decentralization, is not necessarily undesirable. It is not a necessary goal to block this trend, *as a long-range matter*. The present concentration of commerce in a central city core developed from limitations of transportation facilities and the subsequent development of limited-in-area, high-density residential sections in and immediately about the central core.

It may well be that the spreading of metropolitan areas by establishment of low-density suburban communities requires a considerable decentralization of certain types of commercial establishments. The creation of these satellite communities, in the opinion of many city planners, might well be encouraged as a long-range answer to the problems of transportation, the overbuilding in urban centers, and the eventual degeneration of high-density areas. However, any such planned, long-range decentralization is quite a different thing from the wasteful driving out of either business or population from central areas. Certainly, it should

not be forced by paralysis of movement. Thus, one criterion for a solution should be to avoid large commitments of funds in fixed facilities, such as subways, channeled to a central area which may eventually cease to be.

**A**s we all know, a basic cause of central city traffic congestion is the mushroom growth into the suburbs of the metropolitan area, plus the obvious fact that more people own autos and have them available for use than ever before. The newly developed areas have a low population density, too low a density for adequate urban transit coverage to be a paying proposition, when coupled with the requirement for lengthy, high-cost runs to the central city area. As the area continues its spread, and transit service gets less adequate and more expensive, the use of the private auto for rush-hour commuting to the central area accelerates, and congestion increases, and eventually overtakes the convenience and utility of private automobile transport. The vicious circle becomes complete as the central traffic paralysis engulfs all vehicles during the rush hours.

The development of minor commercial centers in the suburban residential areas, a start of the much-anticipated decentralization, has only a nominal influence toward decreasing rush-hour congestion in the central city. But it does have a significant effect in lessening off-peak central city traffic. This effect, while distressing to the downtown merchant, is more serious in its results as far as mass transit is concerned, since it increases the disparity between peak and off-peak transit loads, and increases over-all costs of transit operation.

## PUBLIC UTILITIES FORTNIGHTLY

ANOTHER obvious basic cause of traffic congestion, which is also partially the effect of the spreading of the area, is the diversion of riders from mass transit to the private auto. This diversion is caused by the factors that have already been described, among many others. All these factors may be summed up in the declaration that, temporarily at least, the use of the private auto has many advantages over the use of mass transit.

These advantages of the private auto derive primarily from its greater convenience and speed. Even from a cost standpoint transit does not make a too favorable showing compared with such unrestricted private automobile competition. A realistic look at auto costs indicates that they are usually considered on an incremental basis; that is, how much it will cost to drive the car rather than having it but not using it. Strictly operational costs may be quite negligible. The only important element of cost may be that of parking, which can be free to those fortunate drivers who locate on-street parking spaces and so we may well find situations where the cost of off-street parking space can be less than the cost of using transit. From the standpoint of convenience and speed, the private auto has distinct advantages over transit if we assume availability of terminal parking, since it offers door-to-door express service, which transit cannot hope to offer.

Obviously, *so long* as this relative desirability of the private auto is maintained or increased, private auto use will inexorably increase traffic congestion to the point of near paralysis. At which time they tend to disappear into the general paralysis of traffic congestion, because a private automobile which cannot move freely is a little better off than a streetcar or bus caught in the same jam. When the traffic jam becomes general and complete—all vehicles can become equally useless. More extreme and more expensive methods of correction would then have to be taken, than if the problem is met before the point of near paralysis is reached.

MANY of the so-called remedial measures now being attempted in communities, at best are not helpful, and at worst will compound the problem and make eventual solution more difficult. Highway and main artery construction, all-moving regulations, other improved traffic controls, and staggered working hours act to improve the flow of all traffic. They leave the relative desirability of transit use *versus* auto use unchanged at best. Improvement of main arteries will actually act to increase central city rush-hour congestion, since central city streets cannot be appreciably enlarged. Since improved traffic facilities act as traffic generators they attract additional auto use. Even if we could assume no increments to



“BUILDING off-street rapid transit, as has been proposed, offers a probable solution, but at such a high cost that many communities would find it an unacceptable burden. Such off-street rapid transit would have to be underground in the central city, and probably for some distance beyond, or entail the condemnation of many miles of valuable surface property.”

## A PATTERN OF CO-ORDINATION, TRANSIT—TRAFFIC

existing auto traffic, so long as the capacity of central city streets cannot be appreciably increased, congestion will back up on the improved main arteries. Expansion of central city parking facilities is another aggressively promoted means of coping with the problem. *There is no more effective means of attracting additional auto use and increasing central city congestion than such expansion of downtown parking.*

IT is easy to visualize the eventual consequences of pursuing these policies. If we keep existing arteries and bridges available for autos, and maintain existing parking, build more bridges, more highways, and more parking, eventually we will have used up all central city space available for parking, and central city streets will be fully congested. By that time, transit service will have deteriorated to an unacceptable level, transit fares will have reached unacceptable heights, and the community will have been forced to purchase what is left of the service. Uneconomic, forced decentralization of commerce will be occurring.

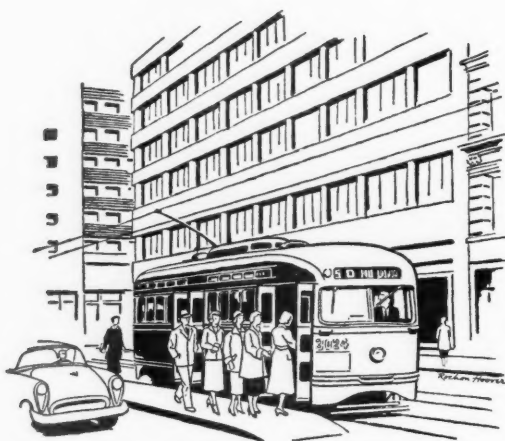
Building off-street rapid transit, as has been proposed, offers a probable solution, but at such a high cost that many communities would find it an unacceptable burden. Such off-street rapid transit would have to be underground in the central city, and probably for some distance beyond, or entail the condemnation of many miles of valuable surface property. Due to the low-population density in suburban areas, and the vast area covered by the spreading metropolis, a sufficient coverage by the off-street rapid transit could not be directly attained, but fringe parking facilities at intermediate and outer rapid transit

limits would have to be provided, as well as a network of bus feeders to rapid transit terminals. The high costs of rights of way and of construction would practically assure that the rapid transit could not be maintained through fares. Public financing and public subsidy would be necessary to maintain a minimum of service at a reasonable fare.

### *Some Practical Steps to Solution*

GETTING people to use transit rather than private autos for rush-hour travel would obviously be a long step toward solving the traffic congestion problem, since highways, streets, and bridges have the capacity to handle off-peak traffic. It would seem, therefore, that some method to accomplish this would provide a concurrent solution to the plight of central city commercial establishments in retaining patrons. It would also offer a better chance for reasonable transit fares yielding adequate transit income, in spite of the possible increase in the ratio of peak to off-peak transit patronage, by allowing greater operational speeds and a greater number of load turnovers.

But we face a hard alternative. Making the use of transit more attractive than the use of autos in rush hours can only be accomplished by taking some steps to make it more difficult to use autos, rather than relying entirely on steps which make transit use less difficult. Yet, it would seem proper to do this as a matter of public policy. The auto user certainly does not have the moral or legal right to unrestricted use of tax-paid streets and highways at all times and places of his choosing. He has already been widely restricted as to *whether* he can park, and *where* he can park, when necessary to allow freer



### Let's Clean Up the Traffic Mess First!

**“A**LMOST all efforts are now directed at making it easier to use private autos. More highways, bridges, and parking attract more autos, slow up transit, cut transit riding, and make inevitable near paralysis of movement, and transit subsidy or public ownership. Why not consider immediately available means to clear congestion by making transit service more effective and at the same time more economical?”

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flow of traffic. He has been told which streets to use, in which direction he might travel on them, and what portions of a street he might occupy (for example, the “unbalanced lanes” in rush hours) as traffic conditions have required.

**T**HE basic principle is therefore one which is already established. It remains only for reasonable extensions of that principle to be made. There is one more compelling reason why such steps should be taken. This is not a choice between unimpeded use of autos and restrictions on that use. It is only a choice be-

tween restrictions on use by policies which will allow a freer flow of all people, including auto users, rather than restrictions on use forced by increased traffic congestion.

With this principle accepted, there can be more efficient, more economical techniques for solution. Four steps are involved. The order of their presentation need not denote the order of their introduction, since a careful phasing of each step with the others would have to be worked out. Here are the proposed steps:

First: Why not abolish *all-day on-street* parking and cease expansion of,

## A PATTERN OF CO-ORDINATION, TRANSIT—TRAFFIC

or cut back, *all-day off-street* parking in the central city area?

Second: Why not establish an "on-street rapid transit service," by reserving a grid of downtown streets for all-bus transit use *during rush hours*, and phasing traffic control systems to allow rapid and unimpeded travel on those streets?

Third: Why not establish fringe parking areas as close as possible to the periphery of the downtown transit grid, at the juncture of main entry routes with the grid?

Fourth: Why not reserve several long entry arteries from the suburbs for all-bus use during rush hours?

THE relative speed of transit use as compared with auto use depends upon speed of transit *movement versus* speed of auto *movement plus parking time*. By abolishing *all-day* on-street parking and ceasing expansion of, or cutting back, *all-day* off-street parking, the use of autos would be made much less appealing. It would give transit a relatively greater attraction. General congestion would be alleviated by getting parkers out of curb lanes.

In addition, a reduction of *all-day* parking would be of direct assistance to "central city" commerce, since it would free parking spaces for the short-time shopper and business parking. While existing parking spaces cannot take care of the combined requirements for *all-day and* short-time parking, they could probably handle short time alone. Restrictions on *all-day* parking only would affect primarily the inflexible employee group, while it is the availability of short-time parking which has a direct effect on commercial

enterprises and the trend toward decentralization.

The rush-hour "on-street rapid transit" has the immediate effects of appreciably speeding central area transit service and lowering costs of service. In conjunction with the parking space cutback, maximum loading is assured, again lowering cost of service, and in combination relieving pressure on fare levels. The short-haul commuter would travel at speeds approximating or bettering his previous speed by auto.

THE establishment of fringe parking lots at the juncture of main arteries connecting with the downtown transit grid would enable the long-haul commuter to avoid central city traffic congestion, and with the downtown transit grid in operation, would probably reduce his total travel time, certainly below the elapsed time which may be anticipated in the future if such methods as these are not adopted. There would be considerable assurance of the fringe lot use, due to the parking cutback.

Depending upon the distance of congestion from central city along main arterial routes, and availability of fringe parking locations, fringe parking could be located farther out, with express bus service to center, preferably again on routes reserved for transit or constructed for transit. The fringe parking areas would best be of a "strip" type; long narrow areas immediately adjoining the artery used by the transit grid buses, admitting easy access to autos and reducing to a minimum the walking distance from parking space to bus route. There is a possibility that in some areas streets paralleling the main artery might be used with diagonal parking.



## PUBLIC UTILITIES FORTNIGHTLY

THE reservation of long arteries from the suburbs for all-bus use during rush hours would give the advantages of off-street rapid transit without a considerable outlay of funds and without the installation of a fixed, inflexible facility. Obviously, it would be difficult to justify reservation of a 4-lane or 6-lane main artery for this purpose, but it would be justifiable to reserve a 2-lane parallel route, even where considerable outlay might be required to make it connective and a true through route. Bus feeders could range through suburban areas, enter the reserved route, and speed downtown with the aid of phased traffic signals to connect with the downtown traffic grid. A number of such radial arteries could save considerable amounts of money by avoiding the necessity for a number of the peripheral fringe parking lots, as well as by reducing long-haul transit costs through an increase in the number of turn arounds.

Admittedly, this proposal may require the expenditure of some public funds. But since the rights of way are already purchased, the amount would be nowhere near that required for off-street rapid transit. It would require far *less* expenditure or use of tax funds for strictly private purposes than a limitless expansion of highway and parking facilities which, as we know, only compounds the problem.

### *Would It Work?*

THE alternatives which the typical urban community now faces seem clear: (1) an acceptance of the private automobile as appropriate intraurban peak-hour transport, plus a limitless provision of facilities to take care of this.

Such a course is ultimately self-defeating; (2) provision of adequate mass transit, with public assistance if necessary, *under conditions which will assure the public use of it.*

Almost all efforts are now directed at making it easier to use private autos. More highways, bridges, and parking attract more autos, slow up transit, cut transit riding, and make inevitable near paralysis of movement, and transit subsidy or public ownership. Why not consider immediately available means to clear congestion by making transit service more effective and at the same time more economical? Discouraging auto use in peak hours by limiting the availability of street space and of parking and giving transit the advantages of unimpeded movement would result in a larger volume of riders.

The introduction of this plan in places similar to the Washington, D. C., metropolitan area would require detailed planning as to appropriate streets and arteries for transit use, locations of fringe lots, and methods for control of central city parking. In addition to these technical considerations, it would be necessary to resolve problems as to policy and administration, such as regulation of the operations of the parking facilities and the transit facilities, and the financing of these facilities.

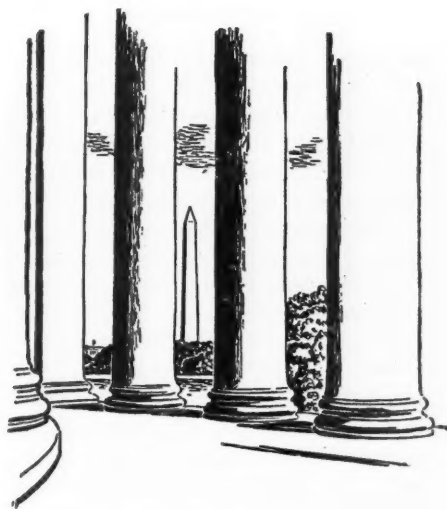
Admittedly, for application of these simple steps to other metropolitan areas, additional problems would arise, and some extensive modification of the proposals might be necessary. But the basic steps are clear enough. The main consideration for most cities would be to take them soon enough, before far more expensive correction becomes inescapable.

# Washington and the Utilities

## *Capital Transit's Experiment*

THE nation's capital is the guinea pig this year of one of the most unusual experiments in the history of public utility regulation. The Capital Transit Company, which has been rendering service in the area since it took over from the old Washington Railway & Electric Company and Capital Traction Company, has had its franchise revoked by act of Congress. Under this Public Law 389, the company's franchise will expire August 14, 1956—one year from the effective date of the act. Meanwhile, the law provides that the commissioners of the District of Columbia could negotiate to end a disastrous strike by reaching an agreement with the striking union on wage demands. The law also provides for absorption on the part of the District of Columbia of any operating losses not offset by fare increases.

Subsequent to the enactment of this law, the company did negotiate with the union on a wage agreement, and the public utilities commission of the District of Columbia did authorize a fare increase calculated to offset the extra expense for the balance of the year. In addition, the



District of Columbia commissioners threw open the operating rights to do a general transit business in the District after August 14, 1956, to the highest bidder. So far "nibbles" have been reported but nothing definite has materialized.

It is interesting to note that the public utilities commission, which has jurisdiction over fixing rates, was asked by the civil commission—which governs the city—to "recommend" a suitable fare increase, and it did. This unusual prelude to a fare-fixing determination was described in a majority opinion (Commissioner Weston dissenting) as follows:

After pursuing the negotiations with the union to the point of knowing what additional costs would result from a contract acceptable to the union, the board of commissioners, in order to complete its negotiations with the company, requested this commission's recommendations on two questions: (1) as to what fare increase would cover the increased labor costs and (2) what fares we would recommend as a basis for an authorization to Capital Transit to furnish service for the duration of

## PUBLIC UTILITIES FORTNIGHTLY

the period contemplated by Public Law 389. In answer to the first question this commission recommended two fare schedules, based alternatively on an inclusion and exclusion of the proposed increase in school fares as a partial offset against the increased costs. In answer to the second question we again recommended the latter schedule. These answers were given on the very day that the request was made. In response to a new inquiry, we promptly recommended a further increase in the token rate if the board of commissioners found this concession necessary to resolve the dispute before it. These actions were based on our judgment, expressed in our public statement . . .

### *Good-bye Streetcars*

IN addition, the District of Columbia commission's opinion emphasized the problem of "obsolescence" of streetcar properties as distinguished from bus operations. The civil commission, in inviting bids for a new operating management, likewise emphasized a condition precedent that there would be no more expensive rail operations.

Immediately, Washington newspapers became flooded with letters to the editors from the ubiquitous, "*pro bono publico*," "outraged citizen," and the usual other *nom de plumes* of indignant writers of letters to newspaper editors. A seeming majority bemoaned the loss of Washington's admittedly comfortable and up-to-date streetcar operations and deplored the advent of diesel buses described in most uncomplimentary terms as "smelly," "jerky," "crowded," etc. But the commissioners are seemingly adamant in their determination to put the new transit operation on a less expensive basis, by getting rid of the rails.

The city of Washington does have a

rather unusual rail operating setup, due to the fact that the Congress of a by-gone year forbade the erection of trolley poles in the city proper. (The "city proper" includes all older sections of the District of Columbia, comprising all of the southern part of the city from the Potomac boundaries up to the old Florida avenue boundary on the north side.) This meant that streetcar rails had to be accompanied by an underground slot. The result was to give the capital city a clean sweep of unsightly trolley poles. But, of course, it also meant maintaining a miniature subway along the center of the roadbed for an underground third rail to carry power. It cost money and it loaded the rate base.

REFERRING to this "obsolescent half" of the Capital Transit Company's system, the more recent extensions being bus operations, the District of Columbia commission's majority opinion stated:

When confronted with these considerations in the past, Capital Transit has consistently taken the position that the substitution of buses for streetcars would have cost the consumer even more money at least in the immediate conversion period. This has been based on the contention that it was entitled to charge the public not only for the cost of furnishing service with the new equipment, including depreciation thereon, but also was entitled to recoup from the public its investment in the property required to be retired because of its economic obsolescence. In short its position has been that the entire loss due to the economic obsolescence of the streetcar system should be borne by the consuming public. Other companies in similar positions have suggested and other regulatory bodies have adopted plans for a sharing of the loss between the consuming public and the investors.

# Financial News and Comment

By OWEN ELY



## Trends of the Transit Industry

THE following report is based largely on data contained in the 1955 edition of the *Transit Fact Book*, published by the American Transit Association (now going to press).

The transit industry consists of (a) 65 electric railway companies—5 subway and elevated railways, 22 other city railways, and 38 interurban railways; (b) 40 trolley coach companies, all urban; and (c) 1,550 motorbus companies (867 urban and 683 suburban). It is difficult to make an exact division between (b) and (c), however, since some railway and a majority of trolley coach companies also use motorbuses.

A better way to analyze the industry, perhaps, is the financial setup, as follows:

	Gross Investment	Operating Revenues (Millions)
Subway and Elevated		
Railways .....	\$2,250	\$ 269
Surface Railways .....	692	204
Trolley Coaches .....	165	142
Motorbuses .....	756	857
Totals .....	\$3,863	\$1,472

The industry statistics are not divided between municipally operated transit and privately owned companies. However, the seven largest publicly owned utilities (in New York, Chicago, Detroit, Cleveland,

Boston, San Francisco, and Seattle) had total revenues last year of \$532,000,000, with operating income of only about \$6,000,000 available for fixed charges. Thus, the municipal companies were able to take down only a little over one per cent to gross operating income, while the remainder of the industry (including smaller publicly owned companies) took down 4 per cent despite payment of heavy local taxes. (Before all taxes the proportion would be nearly 14 per cent, quite a respectable showing.)

FOUR out of the seven large municipal systems operated in the red even before fixed charges, with the New York city subways rolling up a deficit of over \$3,000,000. (Despite its deficit and the threat of a strike over higher wages, the newly constituted New York City Transit

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## PUBLIC UTILITIES FORTNIGHTLY

Authority is experimenting with air conditioning for the subways.) The Chicago Transit System, which was reorganized with a flexible fare system several years ago, reported operating income of over \$8,000,000 which, together with smaller net earnings in Detroit and Cleveland, more than offset the deficits in New York, Boston, San Francisco, and Seattle. Net income after all charges is not reported for the industry.

THESE earnings figures may explain why the municipalities are not anxious to take over any more of the industry than they now have. Early in 1955 Jonesboro, Arkansas, switched to municipal operation, and this is the only such change since Janesville, Wisconsin, did so in 1951—incidentally, the latter is now trying to go back to private operation. New York city is attempting to get private operators to take over some of its bus lines.

Total U. S. transit revenues in 1954 were \$1,472,000,000, a decrease of 3 per cent from the previous years. Expenses declined slightly and taxes also dropped about \$8,000,000 so that the decrease in operating income (about \$45,000,000) was negligible. The industry was able to take down 3.05 per cent of revenues to operating income compared with 2.98 per cent in 1953 and 1.98 per cent in 1952. In 1945, however, with wartime conditions and fewer automobiles, the industry was able to bring down 10.77 per cent, and back in 1935 as much as 14.09 per cent.

The tax problem remains a serious factor, with total taxes absorbing two-thirds of net revenues last year. Federal income taxes amounted to only 13 per cent of total taxes due to the low level of earnings, while other federal taxes absorbed 23 per cent and state and local taxes 64 per cent. The industry is making some progress in reducing local taxation.

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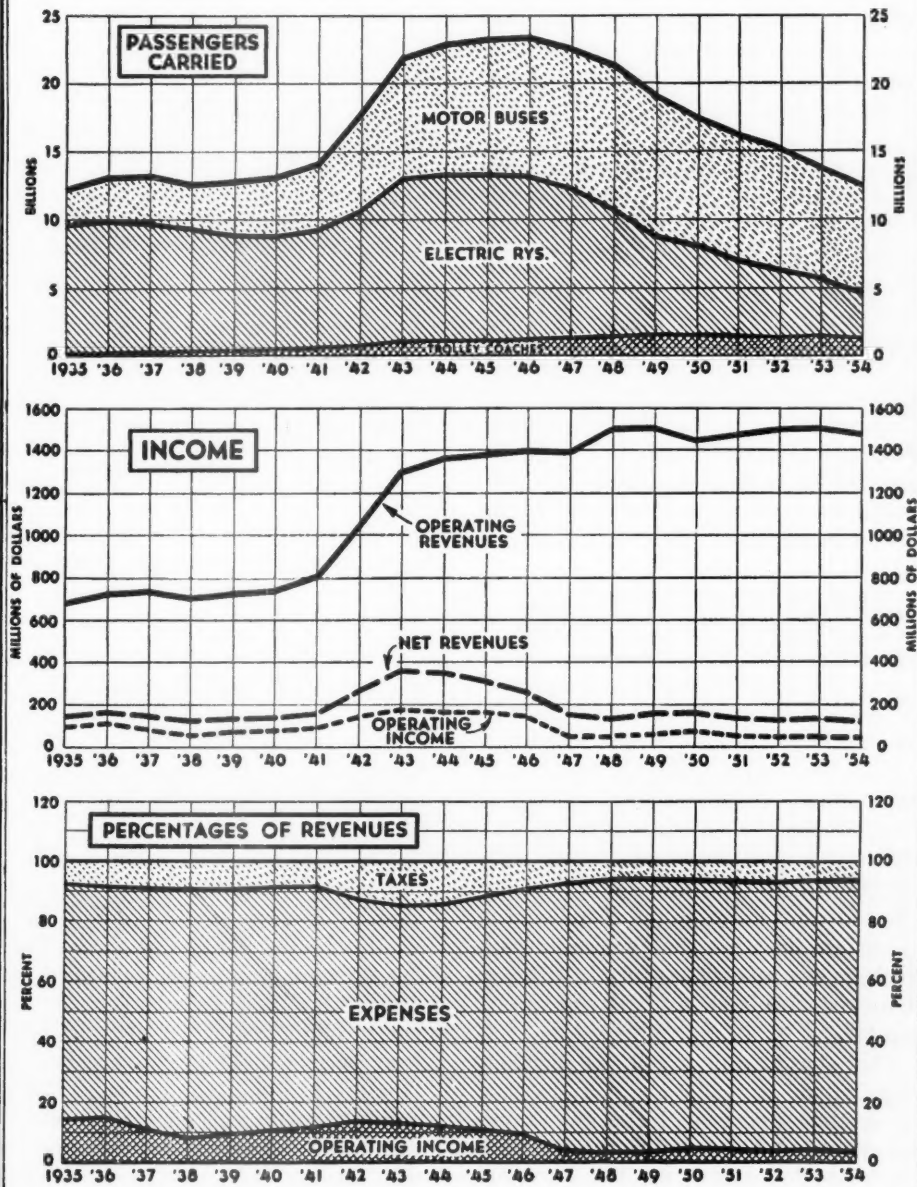
THE earnings plight of the industry is attracting increased attention from public agencies. In the May 12th issue of the FORTNIGHTLY, the investigations of the Wisconsin and New York state commissions were described. Some of the proposals of the Wisconsin commission were enacted into law June 15th. The commission had suggested a fare structure which would provide an operating ratio between 92 and 95 per cent, unless a lower ratio should be necessary to provide a return of 8 per cent on the rate base. It also proposed that urban transit should be exempted from local and state taxes, becoming subject to a special income tax after 8 per cent was earned on net plant cost. In Washington state, in the house-enacted bill for highway construction (it did not get through the senate but will doubtless be enacted in some form next year), transit companies were to be exempted from taxes on gasoline, diesel fuel, and oversize tires.

The steady decline in passenger riders which began in the postwar period continued in 1954, with the biggest decline (about 27 per cent) experienced by surface trolleys, while the average was 12 per cent. Total passengers carried dropped back to about the level of 1935—being only a little over half the number carried in 1945 when factories were running three shifts and new autos were scarce. The number of urban rides per capita per annum dropped last year to a record low of 135 compared to 153 in the previous year and a wartime high of 312.

The vehicle mileage figures indicate that even the subway lines have lost ground continuously, though slowly: 1954 mileage was 375,000,000 compared with 391,000,000 in the previous year and 471,000,000 in 1940. The decline in the vehicle miles of the surface lines was, of course, much greater—last year it was down to



# TRANSIT OPERATIONS AND INCOME 1935 - 1954



Source of Data - American Transit Association.

## PUBLIC UTILITIES FORTNIGHTLY

216,000,000 or only about one-fifth of the 1935-45 level. The motorbus mileage, while it has slipped a little since 1950, still remained slightly ahead of 1945 and the same is true of the trolley coach, whose mileage was only slightly under that of the old-fashioned streetcar.

So far as the trend of revenues is concerned, the big subway and elevated lines have been able to step up their total receipts through higher fares, even though this resulted in some loss of passengers. This division of the industry showed revenues of \$269,000,000 in 1954 compared with \$149,000,000 in 1945. The surface railways, however, took in only \$204,000,000 compared with \$251,000,000 in the previous year and \$560,000,000 in 1945. Revenues of trolley coach and motorbus companies lost only a little ground last year and still remained substantially above the 1945 level.

The amount of new passenger equipment delivered to transit companies last year increased slightly due to the inclusion of 260 new subway cars. (No such equipment had been delivered in the two previous years.) No trolley cars or coaches were delivered during 1953-54 so that the bulk of the new equipment was in motorbuses.

TURNING to the statistics of trackage and route mileage, the abandonment of surface lines has continued, and such trackage now amounts to only 5,547 miles compared with 16,480 in 1945 and 25,470 in 1935.

There has been practically no abandonment of subway and elevated trackage—the 1954 figure of 1,218 miles compared with 1,230 in 1935. (New York city's abandonment of the Third Avenue El will show up in 1955 figures.) The route mileage of motorbuses increased

rapidly during 1935-50, but has remained about steady since that date, and the same is true of trolley coaches.

ONE of the industry's major problems is the rising cost of labor. While it has been able to cut the number of employees to 211,000 in 1954 compared with 242,000 in 1945, the reduction was only 13 per cent compared with the 21 per cent drop in vehicle mileage. Apparently the industry has not been able to effect new economies in personnel since the war, at least on an over-all basis.

The industry's main troubles in 1955 have been due to strikes. With the industry generally unwilling to submit labor demands to arbitration because of the stringent financial position, there have been strikes in Los Angeles, Washington, Tucson, Buffalo, Scranton, and Little Rock, and walkouts or slowdowns by New York subway employees are now threatened.

These troubles occurred despite the fact that the industry's average annual wage had increased from \$1,536 in 1935 to \$4,232 last year. While the national average hourly wage for bus drivers is estimated at \$1.86, Detroit and Chicago recently raised the rate to \$2.05 and Boston pays \$2.07.

The long strike in Washington, D. C., resulted in further difficulties for Capital Transit Company, controlled by Louis E. Wolfson. Congress passed a law depriving the company of its franchise after August 14, 1956, and the company now plans to liquidate. However, stockholders have been assured by management that "the property will produce more in liquidation than the current market value of the stock." The stock was selling around 9¼ (range this year 12-8½) on August 31st, the approximate date of the above forecast.

## FINANCIAL NEWS AND COMMENT

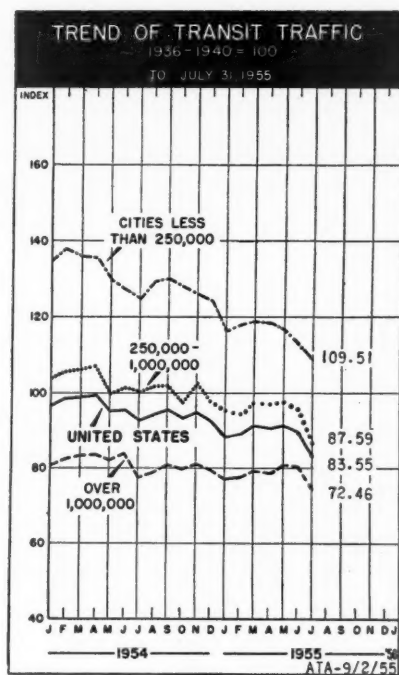
**W**HAT's ahead for transit? *Fortune Magazine* in its September issue, commented as follows:

Many companies think the solution is either municipal subsidy or selling out to public ownership. (National City Lines of Chicago, a holding company of about forty local companies, has a standing offer to sell any of its franchises to the local municipalities, if it can continue to manage the lines.) There is little that most companies can do to increase their "productivity." Man power in most cases has already been cut to the irreducible minimum of one operator per bus, and as the American Transit Association says, "Automation holds no promise for us." To be sure, more speed would mean a faster turnabout and some savings. Donald Hyde, manager of the Cleveland Transit System, for example, figures that an average increase of one mile per hour in the running time of his buses would result in a saving of \$1,000,000 a year. But with more traffic coming into central business districts each year, the prospect of faster traffic flow is dim. Paradoxically the transit industry is "sick" primarily because the nation is so healthy. The migration of people—and industry—to the suburbs, and the American worker's inclination to drive his own car to work, are playing hob with the economics of mass transportation, and with more prosperity in prospect it is likely that next year may see even more transit strikes than 1955.

**W**HILE the industry remains skeptical about automation, one suggestion made decades ago—using only one track—will have its first modern test in Houston, where an 830-foot test pilot line is being constructed. While the monorail

has been tried to some extent in Europe, the Houston experiment will take advantage of new developments in metals and motors, and a gyroscope in each cab will, it is claimed, give a vibrationless ride. Charles Stevenson, a transportation consultant, has envisioned a \$250,000,000 "futuristic" transit system in Washington which would include 50 miles of mono-beam line with 15 miles of subway and 35 miles on elevated structures (with a piggy-back system for buses), 12 miles of "carveyor" system, and 13 miles of speed walks!

**I**N any event, automation will take years to develop. The industry's best program would seem to be a continuing fight for lower taxes, and more efficient handling of traffic to improve speed—plus an educational program for commuting auto-



# PUBLIC UTILITIES FORTNIGHTLY

mobilists. In the latter connection, Dallas Railway & Terminal has made a special investigation and discovered that the out-of-pocket cost of driving a private car is 88 per cent higher than riding a bus.

## Methods of Calculating Utility Share Earnings

IN Public Utility Information Bulletin No. 7, issued September 1st, Vice



### JULY-AUGUST UTILITY FINANCING

#### PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	Amount	Description	Price To Public	Underwriting Spread	Offering Yield	Moody Rating	Indicated Success of Offering
<i>Bonds</i>							
8/19	\$ 2.0	Mississippi Valley Gas Conv. Deb. 4½s, 1975	100.00	N	4.25%	Ba	*
8/31	6.0	California Electric Power 1st 3½s, 1985	101.00	.78C	3.57	A	a
<i>Preferred Stocks</i>							
7/1	1.5	Idaho Power 4% .....	100.00	N	4.00	—	**
7/13	12.0	Northern Indiana Public Service 4.22% .....	100.00	1.70N	4.22	—	a
7/13	16.0	Texas Eastern Transmission 5% (S. F.) .....	100.00	3.00N	5.00	—	a
7/21	10.0	Consumers Power \$4.16 .....	101.00	1.70N	4.12	—	a
7/27	1.0	Southern Colorado Power 4.72% (\$50 par) .....	51.50	1.50	4.58	—	—
<i>Common Stocks—Subscription Offerings</i>							
7/1	.3	York County Gas .....	45.00	†	4.44	9.0	—
7/5	12.8	Long Island Lighting .....	20.50	.14N	4.88	6.1	b
7/21	16.9	Consumers Power .....	45.25	.12C	4.86	7.1	e
8/10	35.7	American Natural Gas .....	48.50	.11C	4.54	7.0	c
<i>Common Stocks—Offered to Public</i>							
8/25	3.4	California Electric Power .....	14.63	.50C	4.79	5.7	a

\*—Offered to stockholders. \*\*—Sold locally. †—Not underwritten. C—Competitive. N—Negotiated. a—It is reported that the issue was well received. b—Ninety-seven per cent subscribed. (Employees subscribed 101 per cent of allotment.) c—One hundred and thirty-three per cent subscribed, 98 per cent under primary privilege, and 35 per cent through oversubscription. e—Ninety-four per cent subscribed.

### TOTAL NEW-MONEY FINANCING

		July	August
<i>Electric Utilities</i>			
Bonds	Sold privately .....	\$ 8,500,000	...
	Sold to public .....	...	\$ 6,013,000
Preferred Common	Sold to public .....	24,226,000	...
	Offered to stockholders .....	30,262,000	...
	Sold to public .....	...	3,250,000
Totals .....		\$62,988,000	\$ 9,263,000
<i>Gas Companies</i>			
Bonds	Sold Privately .....	\$18,480,000	\$102,756,000
	Offered to stockholders .....	...	400,000
Preferred Common	Sold to public .....	15,520,000	...
	Offered to stockholders .....	251,000	35,659,000
Totals .....		\$34,251,000	\$138,815,000
Total Electric and Gas .....		\$97,239,000	\$148,078,000

Source, Irving Trust Company.

## FINANCIAL NEWS AND COMMENT

President John F. Childs of the Irving Trust Company comments on the varying methods of calculating share earnings by the different financial services. In former years earnings were almost always based on the number of shares outstanding, but in recent years many utilities have adopted the practice of using the *average* number of shares in order to cushion the diluting effect on new share offerings.

In general, all the financial services continue to report earnings based on outstanding shares, although if a company reports only on an average share basis, Fitch uses this method. (American Telephone and Telegraph is always thus reported.) Moody's gives the "average shares" figure in a footnote, and Standard & Poor's also show the results both ways if they are furnished by the companies. In an extreme case, such as the sale of a substantial amount of stock in December, Standard will calculate and report earnings per average share. Institutional Utility Service will report earnings per average shares when given by the com-

panies if they are materially different from the figures based on outstanding shares.

REFERENCE was made to Bulletin No. 4 in February, 1953, at which time twelve utility analysts were queried regarding their preferences as to the method of reporting share earnings on outstanding or average shares. In their replies all the analysts wanted earnings based on actual shares, but half of them also wanted earnings based on average shares reported. A majority expressed preference for monthly rather than quarterly averaging.

In general, all the services adjust share earnings figures of earlier years for any stock split or stock dividend of 10 per cent or over made at some later time, but they do not adjust for the effects of conversion of another security into common stock. In the case of conversion of common stock, however, Standard adds back the preferred dividends paid on the convertible preferred stock, before arriving at the balance available for common.



### DATA ON ELECTRIC UTILITY STOCKS

1954 Rev. (Mill.)		9/6/55 Price About	Div. Rate	Cur- rent Yield	— Share Earnings* — Cur. % In- 12 Mos. Period crease Ended	Price- Earnings Ratio	Divi- dend Pay-out	Common Stock Equity
\$230	S Amer. Gas & Elec. ....	49	\$1.80	3.7%	\$2.83** 19% July	17.3	64%	32%
35	O Arizona Pub. Serv. ....	26	1.00	3.8	1.43 D1 July	18.2	70	28
9	O Arkansas Mo. Power ....	25	1.24a	5.0	1.65 15 June	15.2	75	30
27	S Atlantic City Elec. ....	44	1.60b	3.6	2.23 14 July	19.7	72	27
107	S Baltimore G. & E. ....	36	1.60	4.4	2.15** 27 June	16.7	74	40
5	O Bangor Hydro-Elec. ....	34	1.80	5.3	2.18 D2 June	15.6	83	33
4	O Black Hills P. & L. ....	29	1.28	4.4	2.15 4 April	13.5	60	26
86	S Boston Edison ....	61	2.80	4.6	3.12 5 Dec.	19.6	90	53
17	A Calif. Elec. Power ....	15	.70	4.7	.84 7 June	17.9	83	35
17	O Calif. Oregon Power ....	33	1.60	4.8	1.97 23 May	16.8	81	37
7	O Calif.-Pacific Util. ....	30	1.40	4.7	2.20** 4 July	13.6	64	30
54	S Carolina P. & L. ....	25	1.10	4.4	1.58 12 July	15.8	70	32
23	S Cent. Hudson G. & E. ....	17	.76	4.5	1.02 20 June	16.7	75	33
16	O Cent. Ill. E. & G. ....	27	1.20	4.4	1.92 39 June	14.1	63	33
30	S Cent. Ill. Light ....	54	2.20	4.1	3.05 3 July	17.7	72	40
46	S Cent. Ill. P. S. ....	31	1.40	4.5	2.23 38 June	13.9	63	33
10	O Cent. Louisiana Elec. ....	30	1.40	4.7	1.72 17 June	17.4	81	31
30	O Cent. Maine Power ....	26	1.40	5.4	2.06 13 July	12.6	68	29
105	S Cent. & South West ....	33	1.32	4.0	1.96 17 June	16.8	67	36
10	O Cent. Vt. P. S. ....	18	.92	5.1	1.27 24 July	14.2	72	29
95	S Cincinnati G. & E. ....	28	1.20	4.3	1.80 10 June	15.6	67	38
6	O Citizens Utils. ....	17	.48h	5.8h	1.08 6 June	15.7	44	40



# PUBLIC UTILITIES FORTNIGHTLY

1954 Rev. (Mill.)	(Continued)	9/6/55 Price About	Div. Rate	Cur- rent Yield	Share Cur. Period	Earnings* % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay-out	Common Stock Equity
91	S Cleve. El. Illum. ....	39	1.60	4.1	2.11	4	June	18.5	76	42
3	O Colo. Cent. Power .....	26	1.20	4.6	1.64	6	June	15.9	73	39
35	S Columbus & S. O. E. ....	33	1.60	4.8	2.15	15	June	15.3	74	34
310	S Commonwealth Edison ...	47	2.00	4.3	2.72	14	June	17.3	74	49
10	A Community Pub. Serv. ....	26	1.00#	3.8	1.78	13	June	14.6	56	49
2	O Concord Electric .....	41	2.40	5.9	2.64	6	Dec.	15.5	91	63
60	O Connecticut L. & P. ....	19	.98	5.2	1.14	D7	July	16.7	86	38
19	O Connecticut Power .....	44	2.25	5.1	2.77	25	June	15.9	81	41
474	S Consol. Edison .....	52	2.40	4.6	3.07	7	June	16.9	78	43
170	S Consumers Power .....	50	2.20	4.4	3.27	8	July	15.3	67	42
61	S Dayton P. & L. ....	45	2.00	4.4	3.09	5	June	14.6	65	37
31	S Delaware P. & L. ....	38	1.50	3.9	2.16	8	June	17.6	69	35
196	S Detroit Edison .....	37	1.60	4.3	2.31	18	July	16.0	69	45
113	A Duke Power .....	52	2.00	3.8	3.26	2	June	16.0	61	53
81	S Duquesne Light .....	37	1.80	4.9	2.17	1	June	17.1	83	35
27	O Eastern Util. Assoc. ....	36	2.20	6.1	2.38	—	June	15.1	92	36
2	O Edison Sault Elec. ....	16	.80	5.0	1.13	26	June	14.2	71	49
10	O El Paso Elec. ....	42	1.60	3.8	2.35	6	July	17.9	68	37
10	S Empire Dist. Elec. ....	28	1.40	5.0	1.91	D9	June	14.7	73	31
4	O Fitchburg G. & E. ....	55	3.00	5.5	3.26	16	Dec.	16.9	92	53
38	S Florida Power Corp. ....	42	1.60	3.8	2.07	10	June	20.3	77	28
79	S Florida P. & L. ....	36	1.00	2.8	1.83	32	June	19.7	55	38
163	S General Pub. Util. ....	38	1.70	4.5	2.57	10	June	14.8	66	39
6	O Green Mt. Power .....	33	1.80	5.5	2.28	23	June	14.5	79	39
47	S Gulf States Util. ....	35	1.40	4.0	2.03	10	July	17.2	69	30
20	A Hartford E. L. ....	59	2.75	4.7	3.86	16	June	15.3	71	47
5	O Haverhill Elec. ....	42	2.15†	5.1	1.95	D35	Dec.	21.5	110	100
58	S Houston L. & P. ....	43	1.20	2.8	2.30	19	July	18.7	52	40
7	O Housatonic P. S. ....	23	1.40	6.1	1.58	20	Dec.	14.6	89	46
23	S Idaho Power .....	30	1.10	3.7	1.80	5	June	16.7	61	35
70	S Illinois Power .....	54	2.20	4.1	3.32	29	July	16.3	66	35
37	S Indianapolis P. & L. ....	31	1.40	4.5	1.81	13	June	17.1	66	35
18	S Interstate Power .....	15	.74	4.9	1.00	8	June	15.0	74	30
27	O Iowa Elec. L. & P. ....	27	1.25	4.6	1.94	15	July	13.9	64	33
31	S Iowa-Ill. G. & E. ....	36	1.80	5.0	2.34	16	July	15.4	77	40
31	S Iowa Power & Lt. ....	30	1.40	4.7	1.89	3	June	15.9	74	31
27	O Iowa Pub. Service .....	16	.80	5.0	.92	2	July	17.4	87	33
12	O Iowa Southern Util. ....	23	1.20	5.2	1.57	10	July	14.6	76	35
51	S Kansas City P. & L. ....	41	1.80	4.4	2.15	12	June	19.1	84	32
25	S Kansas G. & E. ....	28	1.20	4.3	1.95	8	July	14.4	62	26
36	S Kansas Pr. & Lt. ....	23	1.20	5.2	1.53	7	June	15.0	78	26
35	O Kentucky Util. ....	28	1.28	4.6	2.16	26	June	13.0	59	34
6	O Lake Superior D. P. ....	26	1.10	4.2	1.45	3	June	17.9	76	37
5	O Lawrence Elec. ....	30	1.60	5.3	1.40	D25	Dec.	21.4	114	63
77	S Long Island Ltg. ....	21	1.00	4.8	1.28	14	June	16.4	78	32
41	S Louisville G. & E. ....	54	2.00	3.7	3.67	15	June	14.7	54	35
7	O Lowell Elec. Lt. ....	59	3.30†	5.6	3.04	D19	Dec.	19.4	109	65
8	O Lynn G. & E. ....	30	1.60	5.3	2.01	D7	Dec.	14.9	80	75
7	O Madison G. & E. ....	43	1.60	3.7	3.20	2	Dec.	13.4	50	53
3	A Maine Pub. Service ....	20	1.08	5.4	1.50	25	July	13.3	72	35
4	O Michigan G. & E. ....	43	1.35h	6.1h	3.43	12	June	12.5	39	31
144	S Middle South Util. ....	33	1.50	4.5	2.20	13	July	15.0	68	35
24	S Minnesota P. & L. ....	28	1.20	4.3	1.82	—	July	15.4	66	35
2	O Miss. Valley P. S. ....	28	1.40g	5.0	2.45	9	July	11.4	57	30
10	A Missouri Pub. Ser. ....	13	.60	4.6	.80	D12	June	16.3	75	29
5	O Missouri Util. ....	28	1.36	4.9	1.84	14	June	15.2	73	36
31	S Montana Power .....	42	1.60	3.8	2.80	6	July	15.0	57	34
122	S New England Elec. ....	17	.90	5.3	1.20	5	June	14.2	75	34
38	O New England G. & E. ....	18	1.00	5.6	1.27**	D5	July	14.2	79	35
43	O New Orleans P. S. ....	46	2.25	4.9	2.69	3	July	17.1	84	39
2	O Newport Electric .....	43	2.00	4.7	2.58	D1	July	16.7	78	34
73	S N. Y. State El. & Gas ....	44	2.00	4.5	2.82	5	July	15.6	71	36
210	S Niagara Mohawk Pr. ....	35	1.60	4.6	2.18	7	June	16.1	73	34
68	O Northern Ind. P. S. ....	38	1.80	4.7	2.70	19	July	14.1	67	35
118	S Northern Sts. Power ....	17	.80	4.7	1.13	10	June	15.0	71	33
9	O Northwestern P. S. ....	17	.90	5.3	1.34	10	June	12.7	67	27

# FINANCIAL NEWS AND COMMENT

1954 Rev. (Mill.)	(Continued)	9/6/55 Price About	Div. Rate	Cur- rent Yield	Share Cur. Period	Earnings* % In- crease	12 Mos. Ended	Price- Earnings Ratio	Divi- dend Pay-out	Common Stock Equity
110	S Ohio Edison .....	52	2.20	4.2	3.30	13	June	15.8	67	42
40	S Oklahoma G. & E. ....	38	1.60	4.2	2.18	34	July	17.4	73	30
14	O Otter Tail Power .....	30	1.60	5.3	2.00	4	July	15.0	80	35
386	S Pacific G. & E. ....	53	2.20	4.2	3.18	18	June	16.7	69	39
40	O Pacific P. & L. ....	28	1.30	4.6	1.58	D3	May	17.7	82	29
109	S Penn Power & Lt. ....	49	2.40	4.9	3.04	10	June	16.1	79	29
196	S Phila. Elec. ....	41	1.80	4.4	2.26	4	June	18.1	80	39
29	O Portland Gen. Elec. ....	26	1.10	4.2	1.62	18	July	16.0	68	40
52	S Potomac Elec. Power ....	24	1.00	4.2	1.15	7	July	20.9	87	36
63	S Pub. Serv. of Colo. ....	45	1.80	4.0	2.37	11	June	19.0	76	35
250	S Pub. Serv. El. & Gas ....	32	1.60	5.0	2.19	27	June	14.6	73	31
62	S Pub. Serv. of Indiana ....	43	2.00	4.7	2.41	3	July	17.8	83	34
23	O Public Serv. of N. H. ....	18	.90	5.0	1.37**	37	June	13.1	66	33
10	O Public Serv. of N. M. ....	15	.68	4.5	.95	37	June	15.8	72	31
21	S Puget Sound P. & L. ....	39	1.72	4.4	2.20	15	July	17.7	78	58
49	S Rochester G. & E. ....	46	2.24	4.9	3.22	2	June	14.3	70	32
14	O Rockland L. & P. ....	21	.60	2.9	.83	36	Dec.	25.3	72	29
7	S St. Joseph L. & P. ....	25	1.32	5.3	1.74	1	June	14.4	76	41
39	S San Diego G. & E. ....	19	.80	4.2	1.02	D3	June	18.6	78	44
8	O Sierra Pacific Pr. ....	45	2.00	4.4	2.99	38	July	15.1	67	28
154	S So. Calif. Edison ....	53	2.40	4.5	3.10	22	June	17.1	77	36
34	S So. Carolina E. & G. ....	19	.90	4.7	1.31	17	June	14.5	69	28
6	O Southern Colo. Power ....	16	.70	4.4	1.25	2	May	12.8	56	41
194	S Southern Company.....	20	.90	4.5	1.36	10	July	14.7	66	29
14	S So. Indiana G. & E. ....	32	1.50	4.7	2.34	14	July	13.7	64	34
4	O So. Nevada Power ....	18	.80	4.4	1.36	2	June	13.2	59	64
1	O Southern Utah Pr. ....	16	1.00	6.3	.94	8	June	17.0	106	39
3	O Southwestern E. S. ....	22	1.08	4.9	1.65	9	May	13.3	61	31
33	S Southwestern P. S. ....	28	1.32	4.7	1.55	8	July	18.1	85	30
20	A Tampa Elec. ....	27	1.00	3.7	1.50	18	July	18.0	67	38
117	S Texas Utilities ....	74	2.32	3.1	4.03	17	July	18.4	57	36
35	S Toledo Edison ....	16	.70	4.4	1.04	20	June	15.4	67	30
11	O Tucson G. E. L. & P. ....	28	1.04	3.7	1.72	16	June	16.3	60	40
114	S Union Elec. of Mo. ....	30	1.40	4.7	1.69	14	June	17.8	83	36
28	O United Illuminating ....	53	2.55†	4.8	3.13	8	Dec.	16.9	81	51
4	O Upper Peninsula Pr. ....	27	1.40	5.2	2.22	1	June	12.2	63	31
32	S Utah Power & Lt. ....	49	2.20	4.5	3.21	27	July	15.3	69	41
96	S Virginia E. & P. ....	40	1.60	4.0	2.47	31	July	16.2	65	36
23	S Wash. Water Power ....	42	1.70	4.0	1.99	8	July	21.1	85	35
116	S West Penn Elec. ....	29	1.30	4.5	1.98	10	July	14.6	66	28
64	O West Penn Power ....	50	2.40	4.8	3.14	12	June	15.9	76	33
10	O Western Lt. & Tel. ....	33	1.60	4.8	2.51	32	June	13.1	64	27
22	O Western Mass. Cos. ....	43	2.20	5.1	3.00	6	July	14.3	73	52
88	S Wisc. El. Pr. (Cons.) ....	36	1.50	4.2	2.27	20	June	15.9	66	39
35	O Wisconsin P. & L. ....	26	1.28	4.9	1.65	4	June	15.8	78	32
31	S Wisconsin Pub. Serv. ....	23	1.10	4.8	1.62	13	June	14.2	68	34
Averages .....				4.6%				15.9	72%	

## Foreign Companies

186	S American & Foreign Pr. ..	14	\$ .75(e)	5.4%	\$1.91	D16%	Mar.	7.3	39%	48%
137	A Brazilian Trac. L. & P. ....	8	—	—	1.26	D6	Dec.	6.3	—	70
59	A British Columbia Pr. ....	34	1.70	2.9	1.62	16	Dec.	21.0	62	28
16	A Gattineau Power .....	32	1.20	3.8	1.99	12	Dec.	16.1	60	30
10	A Quebec Power .....	32	1.20	3.8	1.56	20	Dec.	20.5	77	44
45	A Shawinigan Water & Pr. ..	76	1.45	1.9	2.84	25	Dec.	26.8	51	35

B—Boston Exchange. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. \*If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. Percentage change is in the net income available for common stock. \*\*Based on average number of shares. a—Also 8 per cent stock dividend. b—Also 5 per cent stock dividend. c—Also 3/10 share of Northern Illinois Gas for each share of Commonwealth Edison. e—Includes 15 cents extra. g—Also 10 per cent stock dividend January 31, 1955. h—Also regular annual 3 per cent stock dividend, which is included in the yield. †Estimated. #—Also occasional stock dividends.



## What Others Think

### Correcting the Mental Approach to Transit Cure

THE purpose of public transportation is to move large numbers of people daily between where they live and where they work, shop, and play. While this purpose has remained unchanged throughout the entire history of bus and streetcar systems, and devolves from their very natures, actual operation and functioning of such systems have not always best served this objective. There are a number of reasons for this. Overcrowded streets, increased operating costs, and decreasing revenues, are among operating factors that have caused a general decline in service. Equally responsible are public apathy, political irresponsibility, and a very widespread and distressing lack of long-range planning. It is therefore interesting to note the increased efforts of a large number of people to re-evaluate the important rôle of public transportation in community life in the light of its purpose and the needs of the community.

Remedial action aimed at ameliorating the situation of public transportation will be necessary on many fronts, as Donald M. Baker, consulting engineer to the city of Los Angeles, points out in a persuasive article, which appeared in the June, 1955, *Technical Bulletin* of the Urban Land Institute. But he suggests that first steps are necessarily small ones. They may be nothing more than a change in approach or

mental attitude. It is high time, he believes, that those concerned with providing public transportation recognize that their service is a commodity, and as such, a salable one.

He writes:

Selling a commodity in the competitive market means a great deal more than just advertising it. Advertising is essential, but the commodity must be of a better quality than competing commodities and—when utilized by a mass market—must be sold at reasonable prices, quality considered. . . .

Selling public transportation involves doing those things—both large and small—which will result in decisions by large masses of people to use it rather than the private automobile in their daily movements.

When one attempts to compare the efforts to sell public transportation to the general public with the efforts by the producers of commodities and services operating in the present-day competitive market, there is little basis of comparison. If American industry and business were content to allow the general public just to buy their products—and that is what most public transportation agencies have been doing over the past three or four decades—they would

## WHAT OTHERS THINK

soon find themselves in the same situation as the public transportation business now finds itself.

As described by the writer, the situation amounts to this. The current problems of mass transportation have been evolving from the ever-increasing prevalence of the automobile on public streets and from the suburbanization of our society. A vicious spiral has set in as greater use of private automobiles reduces speeds of public transportation vehicles and more and more riders using them take to using their private automobiles. Travel patterns likewise have changed. Mr. Baker states that from 40 to 50 per cent of the total passengers using public transportation during the 16-hour period from 6.00 A.M. to 10.00 P.M. now use such facilities during the morning and evening peaks, which occur from 7.00 A.M. to 10.00 A.M. and from 4.00 P.M. to 6.00 P.M. Nearly one-half of the total daily riding takes place during one-quarter of the daily operating time.

The adoption of the five-day work-week has also reduced peak riding.

The over-all result has been an increased operating capital cost that Mr. Baker attributes logically to the large investment in equipment, unused over three-quarters of the daily operating time. On the other hand, because of reduced riding, frequency of service has been reduced during in-between periods. Naturally, more riders have tired of waiting for a car or bus. They begin using their own automobiles, and continue to use them.

Yet, off-peak hours offer the best opportunity of increasing riding that public transportation agencies now have, according to the writer. This riding should be more profitable to the agency than peak-hour riding. There is no extra debt service to pay on vehicles used, depreciation is

reduced, as is overhead, and split-shift payments to operators should also be less.

BUT the vicious spiral has continued to operate. Most public transportation systems have sought relief from reduced traffic conditions by asking for increased fares, and by cutting down frequency of service during off-peak hours. This in turn has also reduced riding by further encouraging use of private automobiles. As the writer legitimately maintains, relief of this sort can never become a solution to the basic problems of the industry.

Other remedies have been tried. Considering the industry as a whole, Mr. Baker lists a number of major efforts made to retard the downward trend in riding and in revenues. These break down to improvements in the rolling equipment used, changes in traffic regulations for faster flow of traffic, and application of zone fare structures and higher fares. The writer notes that improved equipment has often meant merely less expensive equipment (buses for streetcars, for example) and less comfort for the rider; better regulation of traffic flow has often benefited public transportation less than the automobile user; fare increases have often passed the point of diminishing returns, and may plunge product gross revenue even more steeply downward than over the past two decades.

There is, of course, no easy answer to current problems, but the author is no Cassandra, ready to doom public transportation to extinction. On the contrary. Mr. Baker declares, public transportation performs an essential and extremely valuable service to urban and suburban areas of this country. Eliminate it, he says, and our urban and national economy would be badly upset.

Neither is public operation the answer. In the view of the author, that would

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merely mean transferring the deficit to the taxpayer. Public subsidy would help but little, and it would not stop the current downward trend. What public transportation needs, he insists emphatically, is many more passengers. It can only secure these by causing a large number of potential passengers, when they deliberate between using their own automobiles or a public transportation vehicle, to decide to take the latter.

As his emphasis on salesmanship would suggest, Mr. Baker believes that public transportation agencies must change their philosophy from the generally defensive one now held. Instead of having an abused feeling that they are victims of circumstances, bravely fighting a losing battle against terrific odds, these agencies must turn to an aggressive fighting philosophy with a determination to try every means to make the service they render more attractive than is the comparable service rendered by private automobiles.

The writer continues:

They must sell their community on the fact that they are rendering a public service through increased riding on public transportation. By reducing the need of large public expenditures for freeways, arterial highways, parking facilities, etc., there will result large tax savings to the community.

They should develop strong research departments to find out what is happening in the community in the way of shifts and trends in population, changes in employment patterns, in location of commercial and industrial development, etc.

They should make detailed studies of causes and locations of delays. They should become familiar with sampling technique, with rider psychology. They should study current and probable fu-

ture origin and destination of their riders.

They should make a serious effort to bring into their operating organization the same type of young men as do the leading commercial and industrial organizations. These are young men with inquiring minds. They should make their organization attractive as a career to these young men. . . .

The next step in the approach Mr. Baker outlines is to state and accept the problem facing the industry in their locality, and why it has developed as a problem. Mr. Baker, as a consultant, believes in the service such people can provide. Someone from outside the organization, someone who knows public transportation but who has not acquired prejudices against this and that, he says, can greatly aid those who operate the system if answers are found to the questions (the more embarrassing they turn out to be to management, the more room for improvement) that he asks. The more such answers that are readily available, the better the research department already is—and in all probability the organization.

ANOTHER function of any consultant employed should be to investigate the community. As Mr. Baker puts it: "He should determine whether the agency to the best of its ability is adequately serving the present community or whether it is serving a community which was known ten or twenty years previously."

The author insists that first steps have to be small ones. Any changes that are directed to increased riders, and which necessitate substantial capital outlay, will probably have to be postponed to a future date until the credit of the transportation agency improves to a point where it is able to secure the necessary capital.



# The March of Events



## NARUC Panel on Transit Problems

**C**RITICAL urban bus mass transportation problems faced by the transit industry and communities across the nation will be one of the high lights of the sixty-seventh annual convention of the National Association of Railroad and Utilities Commissioners in Asheville, North Carolina, October 24th to 27th.

NARUC President W. F. Whitney said a five-member panel discussion, covering all phases of urban mass public transportation, particularly bus operations, will occupy the forenoon of October 27th.

Selected as moderator is Leon Schwartz, chairman of the Pennsylvania Public Utility Commission. He will sit with the following panel members, all familiar with mounting transit-traffic problems: Commissioner Glen R. Bedenkapp, New York Public Service Commission; Chairman Robert McLaughlin, District of Columbia Public Utilities

Commission; Commissioner Ray E. Untereiner, California Public Utilities Commission; and Commissioner Paul A. Rasmussen, Minnesota Railroad and Warehouse Commission.

These panel members have made extensive special research of national scope to get factual background from transportation experts, city officials, and urban planners, who are seeking ways to improve mass movement of people and to break the ever-tightening traffic stranglehold in many city areas.

## REA Telephone Loans

**R**EA loans to improve and extend rural telephone service amounted to \$12,406,000 during the first two months of the 1956 fiscal year, Administrator Ancher Nelsen announced recently. That is three times last year's loan total for the same two months.

The total for the last two months represents 31 loans, 18 of them to new borrowers.

## California

### Transit Lines Denied Rise

**T**HE state public utilities commission early this month denied Los Angeles Transit Lines and Metropolitan Coach

Lines their request for an immediate interim increase in fares which would raise the price of tokens from seven for \$1 to five for 80 cents.

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Los Angeles Transit had asked for the increases to offset higher wages it must pay as a result of the contract that ended the recent 35-day strike and to compensate for resulting loss in patronage. The commission ruled a sufficient period had not elapsed to determine the impact of the strike on revenue and patronage. The strike was settled July 24th and operations resumed the following day. The commis-

sion said a new application for a rate increase would have to be predicated on at least four or five months' actual experience.

Metropolitan Coach Lines had asked for the fare increase because of joint local fares between the two companies. It also contended it will be required to pay higher wages following negotiation of a new labor contract.

### Kentucky

#### City to Fight Fare Ruling

**A**CTING Mayor W. S. Milburn of Louisville recently announced the city would appeal the fare increases put into effect by the Louisville Transit Company early this month. He authorized Assistant City Attorney Alan N. Schneider to appeal a State Motor Transportation Department ruling that granted the company authority to raise its fares about half the amount it had asked.

John E. Tarrant, company lawyer and chairman of its board, had previously announced that the transit company would also appeal the state ruling. The company feels the fare increases granted are inadequate and that it needs the full increase it has sought since February.

Both the company's and the city's appeals will be filed in Franklin circuit court at Frankfort. The city takes the position "that no increase is justified."

### New York

#### Transit Post Filled

**T**HOMAS J. McLERNON of South Orange, New Jersey, a Lehigh Valley Railroad man, will succeed Sidney H. Bingham as operating head of the New York city-owned subway, bus, and elevated lines on October 1st. Bingham, sixty-one, submitted his resignation as

general manager and executive director last month to the New York City Transit Authority. He will go on leave October 1st and his resignation will become effective February 1st.

McLernon, who is forty-nine years old, has been manager of lighterage and stations in New York harbor for the Lehigh Valley.

### Tennessee

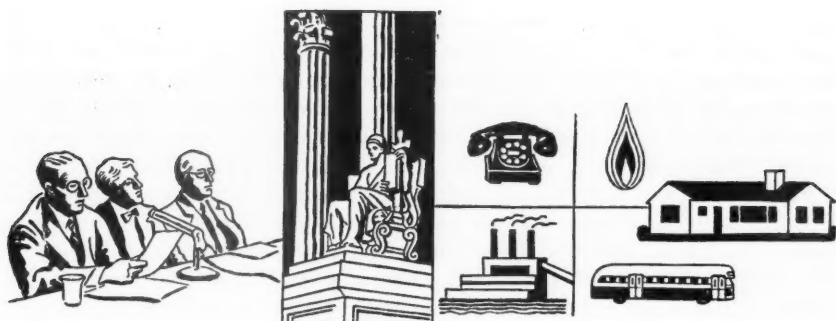
#### Opposes Municipal Plant

**F**ORMER Mayor Watkins Overton of Memphis recently touched off speculation about possible revival of the Dixon-Yates power contract by opposing plans for a proposed \$100,000,000 municipal power plant.

Overton is seeking a return to power

as mayor in the November 10th city election. He said Memphis should renew its TVA contract in 1958 instead of building the proposed huge plant.

The city plant had the backing of the late Mayor Frank Tobey, who died early this month in the midst of his re-election campaign against Overton.



## Progress of Regulation

### *Regulatory Trends*

**I**N view of the direct influence of a corporation's capital structure upon the cost of capital, many regulatory authorities have considered the question whether a hypothetical debt ratio should be used to determine the return allowance. This has been particularly true in the case of subsidiary companies where the parent company's debt ratio is far different from that of the operating company. Hypothetical capital structures have frequently been used without discussion of commission authority to follow that course. We may note, for example, recent decisions in Idaho (8 PUR3d 265), North Carolina (7 PUR3d 43), and Pennsylvania (6 PUR3d 341, 358).

The Ohio commission did not discuss the question of a hypothetical debt ratio in a telephone rate case but did conclude that the company had not produced sufficient evidence to support the cost of money based upon "its actual capital structure" (6 PUR3d 1, 8).

#### *Power to Adopt Hypothetical Debt Ratio*

Regulatory authorities usually take the position that an estimate of allowable cost of capital, in determining the return allowance, does not require acceptance of a company's actual capital structure as an element. In the words of the District of Columbia commission, "the prerogative of management to determine the capital structure of a utility corporation does not and cannot extend to a prerogative to fasten unreasonably high rates upon the consumers at its will" (6 PUR3d 222, 239). Similarly, the Tennessee commission, in fixing rates for Southern Bell Telephone & Telegraph Company, said that under the state laws it had authority to adopt for rate-making purposes a debt ratio different from the actual ratio of the company under investigation (100 PUR NS 33, 42).

The Illinois commission, in fixing rates for Illinois Bell Telephone Company, said that the weight of authority seemed to be that the question of debt

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ratio is a proper one for consideration (7 PUR3d 493, 522). This seemed particularly true in a case where the decision with respect to debt ratio had been made without taking into account its impact on the ratepayer and where considerations pertaining to the Bell system capital structure over-all had influenced the determination of debt ratio by the operating company. The commission had recently approved an issue of stock, and it said that if the stock were considered to be bonds it resulted in a decrease in income tax expense. The debt ratio which the company would have, assuming the foregoing stock issue to be bonds, would be 38 per cent, which was substantially the same as the Bell system debt ratio as of that time. The commission, however, in disposing of the issues, did not believe that it was necessary to hypothecate a different debt ratio. But it did feel that, as a minimum, an adjustment should be made in income tax expense to take account of the tax saving experienced by the parent company as a result of having issued debt at the top of the system's structure instead of at the level of the operating companies.

A rate order was recommitted to the Massachusetts commission for further findings, but the court ruled that the commission's action in fixing rates on the basis of an assumed debt ratio of 45 per cent, even though the company had cut its actual debt ratio to 36.1 per cent, was not unlawful or confiscatory (6 PUR3d 65, 74). The court quoted from its previous statement (88 PUR NS at page 80) that it was not "prepared to say that the refusal of the department to adjust its rates to a reduction in the debt ratio all at once under particularly adverse conditions from the high point of 62.1 per cent to an ideal ratio of 35 per cent or lower and the department's adoption of the figure of 45 per cent were in themselves unlawful or confiscatory." In this case the debt ratio had been cut by management to 36.1 per cent. The commission nevertheless, as before, had allowed rates upon an assumed debt ratio of 45 per cent. The company insisted that this was interference with the prerogatives of management. The commission pressed the argument that the company acted "in flagrant and contumacious disregard of the expressed opinion" of the commission. The court agreed with neither. It said that as a matter of internal management directors have the right to determine upon the reduction in indebtedness, but debt structure enters vitally into the determination of the amount which the consuming public should pay. The court said that its conclusion had the support of "all court decisions discussing the subject" which had come to its attention. Reference was made to decisions in Maryland (97 PUR NS 50), New Hampshire (99 PUR NS 111), and Vermont (90 PUR NS 414). The practice of rate regulating authorities was said to be in accord.

### *Contrary Views*

A Delaware court, however, ruled that the commission had erroneously predicated rates upon an assumed 44 per cent debt ratio rather than upon Diamond State Telephone Company's actual debt ratio (3 PUR3d 255). The court had criticized the commission for similarly increasing the debt ratio for the purposes of the rate case in order to increase deductions for federal tax purposes. This was called commission interference with the internal affairs

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and management of utility affairs. The lower court was reversed in part, but without discussion of the debt ratio question (5 PUR3d 493; 8 PUR3d 286).

Likewise, in South Dakota it was ruled that the debt ratio established by the officers of the Northwestern Bell Telephone Company, in good faith and within the limits of reasonable discretion, might not be rejected by the commission in determining a fair rate of return after considering cost of capital (100 PUR NS 221).

### *Speculation as to Debt Ratio Impact*

A change in capital structure naturally influences investors' appraisal of different classes of securities. This fact cannot be ignored, but it is speculative. In a case before the Arkansas commission involving the Southwestern Bell Telephone Company, witnesses for the company urged the commission to assume a reduction in the percentage of debt to 33½ per cent, and allow a rate of return sufficient to cover a higher cost of "nonexistent equity capital." On the other hand, opponents of a rate increase contended that a reasonable debt ratio was 45 per cent. The Bell system capitalization ratio was said to be 40 per cent. The commission said it could not accept either of these claims, since any hypothetical downward adjustment in the debt ratio for determining a rate of return merely yields additional earnings for equity capital. Likewise, the use of a higher than actual debt ratio results in a theoretical rate of return which can be sufficient to pay costs of capital only if the Bell system changes its capitalization to conform to the wishes of the cities. The debt ratio was said to be an important element in investment appraisal. The commission said it would be indulging in pure speculation if it were to select a hypothetical debt ratio and adjust the actual costs of debt and equity capital to what it thought the investors would require in the circumstances of an assumed change in the quality of the investment (2 PUR3d 1, 12).

The Florida commission, after examining evidence submitted to show a 7½ per cent cost of money, involving an assumed equity capital and actual bond interest applied to actual debt capital of the utility, expressed the opinion that a rate of return based upon this "cost of money" not only ignored the right of the public to reasonable rates and gave precedence to the right of the investor to a fair return, but also was too speculative and conjectural (92 PUR NS 335, 353).

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## *Review of Current Cases*

### No Certificate Required for Suburban Bus Service

THE Kansas supreme court affirmed a commission decision refusing to order an individual operating a bus service along a route partially duplicating the routes of two certificated carriers to cease

operating. The carriers contended that the individual operator should have obtained a certificate before commencing service.

The service in question was between Kansas City, Kansas, and the village of



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Wellborn about three miles away. The court sustained the commission's finding that the service was part of the general transit system of Kansas City, was exempt from commission jurisdiction, and could be rendered without a certificate. The legislature, the court said, "intended to ex-

empt from the provisions of the Motor Transportation Act any line that filled a place in the general scheme of transportation within the city and its environs . . . " *Kansas City-Leavenworth Bus Lines, Inc. v. Kansas State Corp. Commission*, Nos. 39804, 39805, July 6, 1955.



### Power Project License Awarded Despite Opposition By Public Power Bloc

THE Federal Power Commission authorized the Idaho Power Company to construct, operate, and maintain three water-power developments on the so-called Hell's Canyon reach of the Snake river in Idaho. The project will, in effect, preclude construction of a high federal dam advocated by a public power bloc. The political and editorial reactions to the commission's action are discussed in PUBLIC UTILITIES FORTNIGHTLY, Vol. 56, No. 5, pages 323, 335, and 341, September 1, 1955.

#### *Commission Duty*

In license cases such as this one the commission has the duty of determining what is the best plan of development. In addition, it is called upon to determine whether development of the water resources involved should be undertaken by the United States for public purposes.

The commission pointed out that if it does not find that the United States should undertake the development, § 10(a) of the Federal Power Act requires that licenses shall be issued only for those power projects which in the commission's judgment are best adapted to comprehensive plans for development of those streams subject to federal jurisdiction. Of course, other benefits than power production can be secured by the utilization of the water resources involved.

Consequently, the commission must consider not only the power production inherent in the plans before it, but also power in relation to flood control, navigation, and other public purposes to be served by the various plans of development submitted.

#### *Opposing Arguments*

One reason urged in support of the argument that the commission should recommend federal, rather than private, development of the water resources was that the lower cost of power resulting from federal development, as compared with private development, was needed in the area to attract industry, such as aluminum producers, to aid in development of phosphate resources on public lands, and to supply lower-cost power to preference customers to meet their growing loads.

The commission said that there was no provision in the act which would lead it to believe that Congress intended that it recommend federal development for the sole purpose of making power available at costs lower than would be possible if the same water resources were developed by a private entity under a license. The commission noted that if the supplying of power at lower costs resulting from federal development should be considered as a decisive factor, there would be few cases involving major power projects

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where private development could be licensed under the act. This is because of the substantial difference in annual cost of investment money in favor of federal over private financing and because of the much higher annual cost of taxes paid under private development as compared with the freedom from taxes under federal development or, in some few instances, the minor annual payments by some federal projects in lieu of state taxes.

Those objecting stated that the "irrigation aspect alone of the Hell's Canyon proposal would justify a commission recommendation for federal development." The sole manner in which the high federal dam could be related to irrigation would be by the use of power revenues from that project to assist in the payment of irrigation costs in excess of the ability of the irrigationists to pay. The commission said that whether irrigation should be subsidized and, if so, the method of subsidy was a matter for Congress to decide.

In recent reports to Congress concerning bills to authorize power and irrigation projects the commission has confined its comments on the matter of subsidy to a recommendation that all power costs be returned to the United States, with interest, prior to any other use being made of those revenues. Under the circumstances no further consideration of this matter was deemed necessary in this case. The commission concluded that the public purposes, such as flood control, navigation, and recreation, could be effectuated to about the same extent under either plan of development.

### *Power Production*

In considering the matter of power production, the commission said that in order to decide which is the best plan of development, it is necessary to compare the economics of the power production function

of each plan, particularly since power benefits constitute about 85 per cent of the total benefits to be derived under either plan. The usual procedure for making an evaluation of a proposed project consists of estimates and computations resulting in two monetary items—namely, power costs and power values—which are to be compared. When the comparative economics of two or more mutually exclusive plans are to be determined, it is essential that all plans be compared on as similar a basis as is possible from the record. This would include the use of the same assumed basis of financing, whether that be private financing or federal financing.

Objectors urged the commission to make an economic comparison of the power benefits of the two plans on the assumption of federal financing for the one-dam plan and private financing for the three-dam plan. The commission held that such a comparison would be of little value in determining which plan would be more economic for either federal construction or private construction.

### *License Standards*

After concluding that the United States should not undertake the development of the water resources of the area, the commission considered whether the power company had met the standards imposed by the act for the issuance of a license. The company had shown that its plan had engineering feasibility and would economically develop the head and stream flow of the area. Also, there was sufficient evidence to show that safe and adequate structures of the type proposed by the company could be constructed at the sites.

Estimates showed that the output of the development would be needed by the time it could be completed, and that the output of the three dams would be fully utilized by the company's own system by

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about the year 1975. In addition, the record indicated that there was a good possibility that power provided by the three developments and not needed by the company in its system before 1975 could be disposed of to Utah Power & Light Company, a predominantly steam-electric system, and possibly to other utilities.

### *Construction Schedule*

A question was raised as to the commission's authority to include all three developments in a single license containing a condition permitting construction to be commenced on the developments within one-, four-, and six-year intervals respectively. The commission held that § 13 of

the act permits such a construction schedule. With respect to commencement of construction, that section requires only that construction of "project works" be commenced within a maximum period of four years.

The construction schedule to be followed thereafter with respect to other project works to be constructed subsequent to the four-year period rests within the discretion of the commission. This interpretation was held to be in accord with provisions of that section and the past practice of the commission extending over a period of more than thirty years. *Re Idaho Power Co. Projects Nos. 1971, 2132, 2133, Opinion No. 283, August 4, 1955.*



## Is "Deferment Accounting" the Correct Answer to Accelerated Depreciation?

THE Georgia commission gave tentative approval to a proposal by Georgia Power Company that it be authorized to account for liberalized depreciation deductions permitted under § 167 of the Internal Revenue Code of 1954 in the same manner as for accelerated amortization of defense facilities.

The commission in 1952 had provided in respect to defense facilities that (1) the accrual for depreciation on the company's books with respect to these facilities be continued at the normal rate; (2) during the accelerated amortization period, deferred taxes would be charged to income and credited to a reserve for deferred income taxes; (3) after the amortization period, the reserve would be credited to income in annual amounts (equal to not less than the estimated increase each year in income taxes because of the facilities having been totally depreciated during the amortization period) over a 25-year pe-

riod; (4) the charges to income during the amortization period would be allowed as operating expenses for rate-making purposes; the credits to income thereafter would reduce allowable expense, and the deferred income tax reserve would be deducted or excluded from the rate base.

### *New Depreciation Methods*

Section 167 of the new code, in addition to straight-line depreciation, permits the use of (1) the declining-balance method, using a rate not exceeding twice the straight-line rate, (2) the sum-of-the-years digits method, and (3) any other method consistently applied which will not, during the first two-thirds of the useful life of the property, result in a total accrual in excess of the amount which would have been accrued during such period under the declining-balance method.

Georgia Power, desiring to use the declining-balance method, obtained an exten-

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sion of the filing date of its 1954 return to permit it to seek a commission decision on its proposed method of accounting.

### *Effect of Declining Balance*

An exhibit prepared by the company showed that if the company added \$30,000,000 in depreciable plant during the year 1954, the use of the declining-balance method would reduce income tax payments in 1954 by \$234,000. Assuming similar additions in each succeeding year through 1959, the exhibit showed that the total savings would aggregate \$1,686,565. The tax reduction occurring in the first fourteen years would not be completely absorbed or offset until the year 1991. From this showing the commission concluded that when plant additions in successive years are included, the annual benefits are substantial and should be carefully accounted for.

### *Tax Deferment Theory*

The accounting methods used for the rapid amortization of defense facilities were based on the assumption that the net result of the fast write-off would be to defer tax payments until future years. The company sought to make the same assumption with respect to the tax savings resulting from the use of the declining-balance method. The commission did not subscribe to this view. It might be true if the declining balance were applied only to prop-

erty additions during one year or in a limited number of years. But if this method were used on a continuing basis, "the deferment aspect fades out of the picture."

The tax-deferment theory is much less convincing when applied to the new depreciation provisions than when applied to defense facilities. The continuous nature of additions to property results in the deferment being overshadowed by the effect of depreciation deductions related to other property additions.

### *Possible Solution*

The desire of the commission, in setting up these accounting procedures, is to prevent an overstatement or understatement of income for the period in question. The use of an appropriate method of reflecting depreciation expense for both tax purposes and for the company books would accomplish this result. The commission said that "the consistent application of a depreciation method over the life of the property which would approximately offset any variations in income taxes by opposite variations in depreciation expense" would provide the answer. In view of the complexities of the matter, the commission gave only tentative approval to the company's proposal subject to revision "after the conclusion of a depreciation study looking toward the development of appropriate depreciation treatment." *Re Georgia Power Co. File No. 19314, Docket No. 838-U, August 16, 1955.*



## Purchased Gas Adjustment Clause Disregarding Slight Changes Included in Natural Gas Rate Schedule

THE Wisconsin commission authorized a natural gas distributing company to include in its rate schedule a charge for "unauthorized takes" of natural gas and an adjustment clause based on the whole-

sale cost. The commission referred to the fact that the legality and propriety of such clauses were considered at length and approved by other commissions.

The company proposed the adoption of

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an adjustment clause in retail rates whereby a change of consumer rates would be made automatically with each upward or downward change in the wholesale cost of gas. It also proposed that any refund received from the pipeline company might be distributed by a reduction in bills to retail customers over an appropriate period. Both proposals included a "rounding off" process by which minor changes of less than one cent per Mcf or .1 of a cent per Ccf would not be reflected in rate changes or refunds. The general effect of the "rounding off" process was to avoid excessive refinement in retail rate changes. The commission concluded that the proposed plan was refined sufficiently to be reasonable and just to all.

Customers who paid the higher rates might not get the benefit of the refund in exact proportion to their use during the period involved, and some might not get any refund if they had moved away. But, the commission said, to require individual refunds in exact proportion would be very expensive and frequently impractical. The cost of such procedure might be as much or more than the amount of the refund. The plan would benefit customers general-

ly and it was workable and relatively inexpensive.

### *Charges for Unauthorized Takes*

The company was limited under the tariff of the pipeline company supplying it in the amount of gas it might take to supply certain classes of customers and also as to the number of space-heating customers it might serve. The pipeline company makes additional charges for unauthorized takes of natural gas. The company's existing rates made no provision for passing such charges on to the ultimate user. The commission held that the passing on of such additional charges was equitable and desirable as a means of enforcing the limitations on the use of gas.

### *Need for Rate Base*

The company's earnings, after adjusting the cost of natural gas purchased, were in the neighborhood of 6 per cent. Consequently, the commission deemed it unnecessary to make a finding of a definite rate base and reasonable rate of return for purposes of this case. *Re Wisconsin Power & Light Co. 2-U-4404, August 12, 1955.*



## Debt Ratio Sharply Increased by New Security Issues

A SMALL telephone company was granted authority by the Wisconsin commission to issue \$75,000 principal amount of its 4½ per cent first mortgage notes and approximately \$44,000 par value of its common stock. The company was further authorized to distribute half of the new stock as a stock dividend since an accumulated undistributed surplus amounting to nearly \$39,000 was amply sufficient to warrant the dividend.

The purpose of the security issues, aside

from the stock dividend, was to enable the company to retire nearly \$21,400 of first mortgage notes outstanding and to pay for additions to plant. Before the new financing, the total assets of the company amounted to approximately \$88,800, the ratio of common stock and surplus to the total capitalization was 74 per cent, and the debt ratio was 26 per cent. The new issues, however, would reduce the equity ratio to 52.5 per cent and increase the debt ratio to 47.5 per cent. It further appeared



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that the income of the company was barely sufficient to meet the fixed charges of the proposed new debt, though, after certain contemplated plant additions were put in operation, the income would then be ample to sustain this added burden.

Despite the changes in the equity and the debt ratios, the commission decided that the new capitalization proposed by the company would be reasonably satisfactory. *Re Lemonweir Valley Teleph. Co. 2-SB-604, August 11, 1955.*



### Plant Cost Instead of Appraisal Required In Authorization of Bond Issue

THE Georgia commission has granted the application of a small telephone company requesting authority to issue \$125,000 principal amount of first mortgage bonds. The proceeds were intended to finance the cost of converting an exchange to automatic dial operation and to satisfy current accounts and notes payable. While the new bond issue would raise the company's debt ratio to 62 per cent and reduce the equity ratio to 38 per cent, the commission thought the resulting

capitalization would not be unreasonable.

In considering this application, however, the commission rejected an appraisal valuation of plant and equipment submitted in support of the requested authority. The commission said there appeared to be no reason why the appraisal value should exceed the true cost of the property. Consequently, the actual cost figures were required to be submitted. *Re Seminole Teleph. Co. File No. 19339, Docket No. 837-U, July 26, 1955.*



### Order Revoking Suspension of Tariffs Not Appealable

UPON revocation by the Pennsylvania commission of its prior suspension of certain rate increases filed by a gas company serving the city of Pittsburgh, thereby allowing the increases to become effective, the city appealed to the superior court of the state for review of the revocation order. The court quashed the appeal on ground that the order was interlocutory, not final, therefore not appealable.

#### *Suspension Power Discretionary*

The court pointed out that ordinarily, as a discretionary administrative function, the commission may suspend a proposed rate increase or revoke a prior suspension. It may also permit a proposed increase to become effective pending hearing and decision on the lawfulness of the new rates.

The fact, however, that the commission suspends or omits to suspend a proposed tariff indicates neither its approval nor disapproval.

Exercise of the suspending power does not preclude the commission from subsequently lifting the suspension within the statutory period, since there is no substantive right in any of the parties to a suspension or to a continuation of it. Nor does the action of the commission in allowing a proposed rate increase to become effective by its order deprive opposing parties of procedural due process. The reasonableness of the new rates so acted upon remains open for ultimate disposition, and any question of abuse of discretion by the commission is always subject to judicial review.

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### *No Prior Unadjudicated Increases*

The city attempted to bring this case within the scope of an earlier case in which the court had held that the commission acted unlawfully in allowing successive increases to become effective while protested tariffs, still undetermined, were canceled. The court ruled that that holding was inapplicable to this controversy. It appeared in the instant proceeding that certain tariff supplements filed prior to those complained

of were made effective by commission approval, though for more than seven months thereafter no objections were offered. Nor was any disposition of the complaint sought since that time. Under these circumstances the court declared that such previous tariffs must be held *prima facie* valid and could not be regarded as pending unadjudicated increases for the purpose of invalidating the new tariffs. *City of Pittsburgh v. Pennsylvania Pub. Utility Commission et al. No. 237, July 21, 1955.*



### Interexchange Toll System Authorized

THE Indiana commission authorized two telephone companies to establish toll connections between three exchange areas which were provided with free connecting service. Since the free service was used by only a small percentage of the subscribers at the exchanges, it was considered

discriminatory and the evidence indicated, besides, that the existing system was outmoded and inadequate. Under the circumstances, it appeared to the commission that the proposed toll system would provide an adequate service. *Re Freelandville Teleph. Corp. No. 26065, June 24, 1955.*



### Grade Crossing Finally Authorized upon Remand

THE Indiana Public Service Commission has authorized the state highway commission to construct a highway crossing over a railroad track at grade. A commission order granting authority to construct the crossing at a grade seven feet above the level of the tracks had been appealed by the railroad because it was thought that the railroad would have to bear the expense of raising the tracks to the level of the proposed crossing. The order was set aside for insufficient findings of facts, and the cause was thereupon remanded to the commission for further proceedings.

#### *Cost to Railroad Not Considered*

When the commission came to consider the application again, it appeared that the

track bed had been raised to the proposed level of the highway crossing. Moreover, by stipulation and agreement between the parties, the commission was requested, in deciding the application, to ignore the cost of raising the tracks to be borne by the railroad. The parties intended to submit the question of the burden of that cost to a court of law.

Without considering this element of the case, and having made further findings of the facts, the commission made another order granting the requested authority. It expressly refused to concede, however, that an injury to the railroad which might result from any proposed crossing is not a proper matter for the commission's consideration. *Re Indiana State Highway Commission, No. 22396, June 24, 1955.*

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### Authorization of Competing Motor Carrier Service Upheld

THE supreme court of Nebraska has upheld a commission order authorizing a motor carrier to transport water and crude oil for drilling purposes only between certain points over irregular routes. Existing carriers had appealed from the order. The court concluded that the evidence justified a finding that the applicant was fit, willing, and able to perform the proposed service, and that such service was required by public convenience and necessity.

The court observed that normally competitive truck routes will be authorized only where the existing carriers refuse or fail to provide adequate service upon or-

der of the commission. In the instant case there was no commission order requiring existing carriers to provide adequate service.

But, the court said, such an order was not required here because the existing carriers clearly indicated an unwillingness to perform the required service except under conditions as to time of service, cost, and adequacy which the carriers desired to control or unless otherwise they could find assurance of profitable operations. On the other hand, the commission found the new carrier fit, willing, and able properly to perform the service required by the public. *Dalton v. Kinney*, 70 NW2d 464.



### Interim Fees and Expenses Allowed in Reorganization

THE Securities and Exchange Commission has granted the petition of an interim board of directors for approval of maximum amounts of interim fees and expenses in a holding company reorganization proceeding. The board was specifically seated to formulate and present a definitive plan for implementing the plan of a trustee of a holding company going through reorganization. Although the court's order did not go into detail as to how the board should proceed, it was clear that the order by necessary implication authorized it to take appropriate action to carry out its function.

#### *Attorneys' Compensation*

Objectors said that the interim board "was split almost down the middle into two protective committees." They claimed that each faction had filed a plan, and that it was no more necessary that counsel to the majority faction of the board should receive interim compensation from the es-

tate of the holding company than that counsel for the minority faction should receive such compensation. To allow the majority's counsel interim compensation, they claimed, would be to prefer one set of litigants as against another. It was argued that all counsel should await the conclusion of the proceeding, when their services could be properly appraised. The commission rejected these arguments.

The commission said that the fact that the board members could not agree upon a plan was irrelevant to the question whether the board's counsel should be allowed interim compensation out of the assets of the holding company estate. Any board of directors with a dissenting minority can act only by vote of the majority. The majority will, officially expressed, represents not the will of a faction but the will of the board.

Cumulative voting, or proportional representation in electing a board, frequently results in the election of dissident ele-

## PUBLIC UTILITIES FORTNIGHTLY

ments; but, the commission said, the board must speak with a single voice, and that is the voice of the majority. So far as the minority members of the board are concerned, they have no official status as such. Any plan filed by them is not the plan of the interim board but an expression of their views as individuals.

It is customary to allow company counsel to receive interim compensation in reorganizations under § 11 of the Holding Company Act. For the purpose of implementing the trustee's plan to convert the holding company into an investment com-

pany, the board occupied the status of management. Under these circumstances the commission could see no justification for so construing the order appointing the board as to relegate the board's counsel to the position of a volunteer who, as in the cases of the attorneys for various stockholders and the minority members of the board, must wait until the conclusion of the proceeding before it can be determined whether they are entitled to allowances out of the estate. *Re International Hydro-Electric System, File Nos. 54-164, 59-14, Release No. 12928, June 17, 1955.*



### Family Telephone Line Not a Public Utility

UPON the request of an individual seeking telephone service from a line which served only the members of a particular family, the Wisconsin commission instituted, on its own motion, an investigation of the operations of the line.

The evidence indicated that the members of the family had constructed the line, and made connections for six telephones, wholly at their expense and solely for their own use. It further appeared that the line had never been offered or held out to serve

the public. The system was, however, connected with public utility facilities enabling the users to make outside calls, and certain wires of the system were strung on an electric company's poles.

Considering these facts, the commission concluded that the line was not a public utility and rejected the request for an extension of service from the line. The proceeding was accordingly dismissed. *Re Brown (F.E.) Teleph. Line, 2-U-4403, August 5, 1955.*



### City Profits from Increase in Contract Water Rates To Town Based on Cost

THE supreme court of Michigan upheld the circuit court in refusing to enjoin the city of East Lansing from charging the fringe area township of Meridian higher rates for water supplied under contract. There was, however, a strong dissenting opinion.

The contract provided that the township should pay such rates as the city should from time to time establish, though they must be "reasonable in relation to the costs incurred by the city for the supply

of water." The court said the meaning of the term "reasonable" did not admit of exact determination but "depends upon a comprehensive examination of all factors involved, having in mind the objective sought to be attained in its use."

In computing the costs on which the increased rates applicable to Meridian were based, the city apportioned its customer accounting and collection costs and the administrative and general expenses in proportion to the total income from the

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township system and the city system. The court approved this division and also allowed a share of the water system bond service charges to be included in the costs apportioned to the township, though the facilities constructed with the proceeds of the bonds were not directly acquired to meet Meridian's demands for water. A fair return on the city's investment in plant was also held to be a proper item to be included in costs for the purpose of determining reasonable rates under the contract.

The court found that the city had been supplying water to Meridian at a loss. The new increased rates were calculated to raise the income from the township to a point about equal to the cost of supplying service, according to the computation of the city. The court decided that such rates were not unreasonable within the meaning of the contract.

It was pointed out that the burden of proof was on the township to show that the increased rates were unreasonable, and it was not incumbent upon the city to prove its rates reasonable. Meridian did not meet this burden of proof.

### *Contrary View*

The dissenting opinion declared that the new rates should be enjoined because they were unreasonable under the contract. Among the reasons cited for this view were the fact that the increase was based in part on the cost of sewerage service not furnished the township, and the fact that the new rates for Meridian were approximately 187 per cent of the rates for city users, though the cost of supplying a given amount of water to the township (it being a single large customer) was much less than the cost of supplying an equal amount to city customers.

The dissent also disagreed with the majority ruling on the propriety of including a return on the plant investment. This, it was said, does not constitute any part of the costs as contemplated by the contract. It was asserted, moreover, that the city should bear the burden of proving the reasonableness of its rates, since no precise determination of production costs could be ascertained from its accounts, which were solely in its charge and keeping. *Township of Meridian v. City of East Lansing, Michigan et al.* 71 NW2d 234.



## Officers' Salaries and Advertising Expense Scrutinized

THE California commission refused to allow motor carrier rates which would provide a return of 25.7 per cent and an operating ratio of 90.5 per cent. The commission permitted the company to increase its rates to a point where an 11 per cent increase in revenue would result. This would provide a return of 14.1 per cent with an estimated operating ratio of 94 per cent.

### *Officers' Salaries*

The company was engaged in the transportation of motion picture film. It did

business in the form of a partnership consisting of two brothers. The salary paid the partners was about 11 per cent of gross revenues. A commission engineer testified that in the case of other California carriers officers' salaries and expenses did not exceed 4 per cent of gross revenues. The commission did not consider that the percentage difference of itself was sufficient to establish the impropriety of the expense items. An examination of the company's accounting records indicated that one of the reasons for the "misleading ratio" was that the partners charged all of their sala-



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ries and expenses to administrative expense.

A more correct treatment would be to apportion these salaries and expenses between administration and traffic.

### *Advertising Expense*

The commission also considered expenses incurred for soliciting business and advertising. Generally speaking, reasonable amounts for these items are allowable operating expenses. However, where the

claimed expenditures are high and where the company has been serving the same customers in a relatively small area for many years, the commission will insist that the utility prove the reasonableness of the charges. In this case the company had not done so and the commission reflected this deficiency in proof in the rate increase allowed. *Re Goldberg (Film Transport Co. of California) Decision No. 51392, Application No. 36205, April 26, 1955.*



## Invasion of Other Telephone Company's Territory Authorized

THE South Dakota commission authorized a telephone company to extend service into an adjacent territory assigned to another telephone company. The other company had claimed that the loss of the thirteen potential subscribers in the area would adversely affect its application to the REA for a loan.

The loss of one or two per cent of the potential subscribers of a project, held the commission, would not influence the company's financing arrangements for future construction. The other company had not yet constructed any part of its proposed distribution system. This indicated that the invasion would not adversely affect the

successful and economical operation of the rest of the system. The economic or financial effect of the gain or loss of a few subscribers was not a controlling factor.

Although either company could provide equally adequate long-distance service, local exchange service could best be provided by the applicant. Most of the business activities of the potential subscribers in the area, social and church activities, and all school associations were centered in the applicant's exchange area. This evidenced a community of interest with the people living in the applicant's exchange. *Re Farmers & Merchants Teleph. Co. F-2427, July 20, 1955.*



## Electric Company May Not Operate in Disregard Of County Planning Commission

THE Ohio supreme court overruled an electric company's answer to a proceeding brought by a state's attorney to determine by what right (*quo warranto*) the company had constructed power lines in certain territory in disregard of a plan adopted by a county planning commission. The court conceded that the company's

right to do business in territory where planning measures were operative could not be successfully challenged but that the company, in the exercise of those rights, was subject to reasonable regulation in conformity with a plan adopted under the provisions of a state statute.

If this were not so, the court pointed

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out, the company could traverse the planned area in any way it pleased, which course might well disrupt or even ruin the whole planning scheme to the public detriment.

### *Zoning and Planning*

The court was careful to point out that zoning and planning are not synonymous. The court made this distinction:

Zoning is concerned chiefly with the use and regulation of buildings and

structures, whereas planning is of broader scope and significance and embraces the systematic and orderly development of a community with particular regard for streets, parks, industrial and commercial undertakings, civic beauty, and other kindred matters properly included within the police power.

*State ex rel. Kearns v. Ohio Power Co.*  
127 NE2d 394.



## Supersedeure of Commission Order Upheld Despite Irreparable Injury to Opposing Carriers

THE supreme court of Washington has affirmed an order of the superior court which superseded a commission order compelling certain railroads to desist from applying reduced rates to the transportation of bulk petroleum.

The parties opposing the supersedeas order, who were competing carriers, urged that such order was improvident because, while it relieved the railroads from sustaining irreparable damage, it insured that the opposing parties would suffer such damage. In that situation, said the supreme court, the trial court was obliged to exercise its discretion, considering the probable merits of the principal controversy as well

as the prospective detriment to each party, but the fact that irreparable injury would result to the opposing parties did not require that the relief given be denied.

Further contentions, in opposition to the supersedeas order, relating to the finding of facts by the trial court and other alleged improvidence in the issuance of the order were found to be without merit. Without passing judgment on the merits of the controversy, the supreme court found no evidence of abuse of discretion on the part of the superior court in issuing the supersedeas. *Washington ex rel. Pacific Inland Tariff Bureau v. Wright*, 285 P2d 576.



## Court Jurisdiction in Rate Proceeding Divested By Remand Order

THE supreme court of Washington upheld the superior court in denying the petition of a number of carriers to maintain the status quo as to certain proposed railroad tariff reductions, duly filed and otherwise effective, pending the outcome of further commission proceedings upon remand of the cause. The changes had been suspended by the commission, and a

superior court order thereafter superseded the suspending order. But upon review, the court dissolved its supersedeas, reversed the commission order, and remanded the cause. At this point, without awaiting the commission's final determination, the railroad applied the new rates, which had become effective by lapse of time after filing. Thereupon, demands of the competing

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carriers that the earlier suspension be continued in effect were rejected by the superior court on the ground that its jurisdiction in the matter was terminated as a result of its final order reversing and remanding the commission order.

The supreme court agreed. It observed,

further, that the mere pendency of the commission proceeding would not, of itself, operate to suspend the new rates. The railroad was, therefore, at liberty to put the rate reductions into effect. *Washington ex rel. Pacific Inland Tariff Bureau et al. v. Clifford*, 285 P2d 569.

### Other Recent Rulings

**Joint Rates.** The United States district court upheld a railroad's contention that, regardless of proof of pecuniary loss, it was entitled to a judicial review of a commission order requiring the establishment of joint through rates in an area where it appeared that the order was based on an erroneous determination that no through routes existed over a certain line. *Denver & R. G. W. R. Co. v. United States*, 131 F Supp 372.

**Discrimination and Overcharges.** The Texas court of civil appeals, in ruling against a customer's claim for refund of overcharges, pointed out that the existence of discriminatory rates does not, in and of itself, establish the right to refund since the proof of overcharge is (1) the unreasonableness of the rates regardless of what other customers are charged, or (2) the fact that the rate is in excess of the rate established for a particular customer. *Leslie (Leslie Baking Co.) v. Houston Nat. Gas Corp.* 280 SW2d 353.

**Exempt Spur Track.** The United States court of appeals held that a length of track proposed to be constructed by a railroad to an industrial warehouse was a "spur" or "industrial" track within the meaning of the Interstate Commerce Act and, therefore, not subject to approval by

the Interstate Commerce Commission. It was shown that the track would not be used for regular or scheduled service, nor would through-train service, station, telegraph, or loading facilities be provided. *New York C. R. Co. v. Chicago & E. I. R. Co.* 222 F2d 828.

**Book Entries as Evidence.** The fact that certain amounts had been placed on a company's books, commented the California commission, is not *prima facie* evidence, without supporting testimony, that such amounts are reasonable for rate-making purposes. *Re Malibu Water Co. Decision No. 51794, Application No. 35657, August 9, 1955.*

**Return for Water Company.** A return of 6.38 per cent on an average depreciated rate base was considered reasonable for a water company by the California commission. *Re Southern California Water Co. Decision No. 51793, Application No. 36321, August 9, 1955.*

**Return for Water Company.** The California commission considered a return of 6.14 per cent on an average depreciated rate base reasonable for a water company. *Re Southern California Water Co. Decision No. 51802, Application No. 36525, August 9, 1955.*

# Appendix

Important addresses on legal, economic, financial, and other problems, delivered before the Public Utility Law Section of the American Bar Association at Philadelphia, August 22-24, 1955.

## Report of Chairman

By C. OSCAR BERRY\*

ON behalf of the officers and members of the council, I have the privilege of reporting to you that the past year has been one of growth and achievement for the Section of Public Utility Law. It has also been, we confidently believe, a year in which the section has been of service to the profession. Such attainments as have been made, I hasten to say, are the direct result of the interested and active participation of the outstanding men who comprise our council.

Membership of the section has grown substantially, and now stands at the all-time high of more than 1,300. Between July 1, 1954, and July 12, 1955, we added 199 new members and lost eighty-six, for a net gain of 113. By now, we estimate the net gain to be about 125, thus pushing our total membership up to approximately 1,325. While membership is everyone's responsibility, an aggressive committee, with Julian de Bruyn Kops as chairman, has provided the leadership needed for this noteworthy increase.

THE financial condition of the section is satisfactory. Income for the fiscal year (exclusive of ticket sales) was \$4,335—of which \$3,993 was collection of membership dues. Related expenditures were \$3,698. Principal expenses were printing—\$2,744; annual meeting—\$284; contribution to American Bar Center Fund—\$250; and postage—\$108. Our net income for the year was \$637; and the balance in our reserve fund now stands at \$4,105. Unless the section undertakes some substantial enlargement of its publications, the present \$3 level of membership dues should continue to provide sufficient income.

\*General counsel, Washington Gas Light Company, Washington, D. C.

The two main services of the section to its members are: (1) the preparation of the annual report of the Standing Committee to Survey and Report as to Developments during the Year in the Field of Public Utility Law; and (2) the annual meeting of members of the section.

The current annual report of the standing committee was mailed recently to all members. It summarizes and classifies the significant features of a total of over 300 public utility cases, selected by the members of the committee on the basis of importance in indicating the development of the field. An added attraction this year is the comprehensive bibliography included as an appendix.

The work of examining and digesting all current decisions in the field is done by a real working committee of thirty-five lawyers, members of this section. Many are here today. They are selected geographically, by federal judicial circuits, except with respect to representatives of the federal regulatory commissions, who are appointed yearly by the several agencies.

THE huge task first of selecting the membership of the committee, and then coordinating, editing, and arranging for the printing of the report falls to the lot of the committee chairman. This year the chairman is Clarence H. Ross, of Chicago. We here and now express to him and to the members of the standing committee our sincere appreciation for such a splendid piece of work!

Planning the annual meeting is a task in which the entire council participates. Our annual meetings must give appropriate recognition to the various fields of utility law. For that reason each field is represented in

## PUBLIC UTILITIES FORTNIGHTLY

the membership of the council. Our meetings also must be timely, in the sense of offering discussions of matters of prime current interest in the several branches of utility practice. To make the plans necessary for the meetings, to consider adequately the various possible subjects of interest, and to provide for the detailed arrangements, the council meets twice yearly at times other than the annual meeting. Such council meetings are used also, of course, for the transaction of the current business of the section.

The council receives invaluable help in planning the annual meeting from the program committee. It sifts a great mass of ideas and suggestions, and recommends topics and speakers for the meetings. The excellent work of this year's program committee, of which Donald C. Power is chairman, is largely responsible for these three days of topnotch programs. To him and the committee we express our many thanks.

**F**OR several years PUBLIC UTILITIES FORTNIGHTLY has graciously published the speeches delivered at our annual meeting. Reprints of the published speeches have been made available to the council by the publishers at favorable costs, and we have thus been able to send all members of the section copies of each address. We hope to do the same this year, later in the fall.

Our meetings and entertainment committee, with Jerrold Seymann as chairman, has made the pleasant and effective arrangements for council meetings, and for our annual dinner dance (August 24th).

We shall hear reports later from other committees, as to their duties and recommendations. They are the committee to evaluate the work of the Hoover Commission, Bradford Ross, chairman; and the committee on the administrative court, W. James MacIntosh, chairman. On August 24th, we shall hear the report of our nominating committee, of which T. Justin Moore is chairman. We also have had available this year, as in the past, a most competent advisory committee of past chairmen, with Vincent P. McDevitt, chairman.

It is necessary to report that we have not accomplished all we set out to do this year; lack of time and pressure of other professional commitments seem sometimes to slow our progress. A special committee on other

publications, headed by our capable secretary, Henry F. Lippitt, 2nd, has reported, suggesting several interesting possibilities for additional communications with members. We have not yet acted on the recommendations. They should not be dropped, however. They should be made the subject of further study, in the next year.

**T**HE chairman also pleads confession and avoidance as to another item of unfinished business. It is to consider whether two standing committees of the association (1) on aeronautical law and (2) on communications should be abolished by the House of Delegates, since they appear to be committees of supererogation. Surely there is no need for separate, special committees to report to the house on the changes in these subsidiary fields of public utility law. Perhaps in the next year, the council may be able to work out an understanding between the section, the two committees named, and the committee on scope and correlation of work.

In passing, we note with pride that the incoming president of the association, Mr. Gambrell, is a public utility lawyer and a former chairman of this section. Also, last year's chairman of this section, Mr. McDevitt, this year becomes a member of the board of governors.

A year ago, by vote of the membership of the section and approval of the house, the council membership was enlarged from eight to twelve members. As a result, we have had the benefit, this year, of an enlarged council. With four additional members being elected each year, the council will have adequate representation of all areas of utility practice.

The names and professional connections of the officers and council members are set forth below. Your chairman expresses his deep consciousness of the high honor of being associated with this fine group of men this year, and of the generous help they have so graciously contributed.

### AMERICAN BAR ASSOCIATION

#### *Section of Public Utility Law—1954-55*

#### OFFICERS

Chairman: C. Oscar Berry, general counsel,  
Washington Gas Light Company, Wash-  
ington, D. C.

Vice Chairman: Ralph M. Besse, executive



## APPENDIX

vice president, The Cleveland Electric Illuminating Company, Cleveland, Ohio.  
Secretary: Henry F. Lippitt, 2nd, associate, Dougherty & White, New York, New York.

### MEMBERS OF COUNCIL

Vincent P. McDevitt, vice president and general counsel, Philadelphia Electric Company, Philadelphia, Pennsylvania (last retiring chairman).

#### Terms Expiring in 1955:

Julian de Bruyn Kops, counsel, The Dayton Power & Light Company, Dayton, Ohio.

W. James MacIntosh, partner, Morgan, Lewis & Bockius, Philadelphia, Pennsylvania.

Ellsworth Nichols, editor-in-chief, *Public Utilities Reports, Inc.*, Rochester, New York.

Bradford Ross, partner, Ross, Marsh & Foster, Washington, D. C.

#### Terms Expiring in 1956:

Randall J. Le Boeuf, Jr., partner, Le Boeuf, Lamb & Leiby, New York, New York.

Donald C. Power, president, General Tele-

phone Corporation, New York, New York.

Bruce Renwick, general counsel, Southern California Edison Company, Los Angeles, California.

Edward W. Smith, vice president and general counsel, Southern Bell Telephone & Telegraph Company, Atlanta, Georgia.

#### Terms Expiring in 1957:

Ralph E. Axley, partner, Schubring, Ryan, Petersen & Sutherland, Madison, Wisconsin.

D. Bruce Mansfield, general counsel, Ohio Edison Company, Akron, Ohio.

John B. Prizer, general counsel, The Pennsylvania Railroad Company, Philadelphia, Pennsylvania.

Jerrold Seymann, counsel, American Telephone and Telegraph Company, New York, New York.

#### Section Delegate to House of Delegates:

Jonathan C. Gibson, vice president and general counsel, The Atchison, Topeka & Santa Fe Railway System, Chicago, Illinois.

#### Chairman, Standing Committee:

Clarence H. Ross, partner, Ross & O'Keefe, Chicago, Illinois.

## Report on Developments in Communications Law

By WALTER E. CRAIG\*

THE most striking developments during the past year in the communications field stem from inflationary conditions. Perhaps it would be more accurate to say that the most striking developments arise from both the absence and presence of inflation.

There is no need to assure this gathering that inflation is both absent and present at this time and at the same time. The explanation for this paradox is simply that inflationary forces were quiescent during most of the past twelve months but had been rampant for at least the past decade. To demonstrate, we might look at the Consumers Price Index. In June ten years ago it stood at 77. In June

last year it was 115, an upward change of about 50 per cent. But in June, this year, it stood at 114.4. In the past year the barely perceptible change was downward, although recent indications are that it may start upward again.

WHAT then occurred in the communications field, in part at least, because of the absence of new inflation in the past year? A significant development was the comparative paucity of requests by utilities for increased rates. With price levels relatively stable during the past year, some of the pressure for increased earnings abated. This has resulted in a marked reduction in the number of rate increase requests as compared with the average during the postwar period.

Whether this short-term stability will continue in the future and thus act as a damper

\*Partner, Fennemore, Craig, Allen & Bledsoe, Phoenix, Arizona, and counsel for Mountain States Telephone & Telegraph Company. A former member of the ABA House of Delegates and former president of the Arizona State Bar.

## PUBLIC UTILITIES FORTNIGHTLY

on the flow of requests for rate increases is better answered by an economist than by a lawyer. Economists indicate that over the long pull continued inflation can be expected. On that basis, we can probably expect a fresh impetus toward requests for rate increases. Even without continued inflation, we can expect continued requests for rate increases for various reasons. One reason is the lag by some commissions in giving recognition to the past decade's inflation when fixing rates. Another is the fact that installation of units of plant at today's high cost inevitably increases the investment on which a return must be allowed.

THIS presence of inflation—our legacy from the past decade—accounts for the second striking development in the communications field during the past year. We have had court decisions in Delaware, Illinois, Maine, New York, Massachusetts, and Michigan which have either required regulatory authorities to take into account the inflationary conditions in fixing communications rates or have sanctioned such action by the regulators. Thus we have the relatively odd coincidence of courts taking this action at the same time that the economy levels off. We would not be entirely accurate if we did not mention that there has been a contributing cause to this phenomena other than the accrued inflation of the past decade. It seems quite apparent that the judicial lag is partly responsible for the coincidence. No reflection on the courts is intended—such a lag is inherent in our judicial process. Adjudications must necessarily come after the facts are established.

The Delaware supreme court's decision<sup>1</sup> of April 20, 1955, is very interesting. You may recall that earlier the Delaware supreme court had modified and affirmed a lower court decision which had reversed a commission order. The supreme court, however, upheld that portion of the commission's order fixing the fair value of the company's property in an amount about 12 per cent above net cost. On rehearing the court held that the commission had failed to give sufficient weight and consideration to reproduction cost in light of the evidence and the present inflationary conditions. The company had also

sought to have the court fix the fair value, but the court refused to make the determination and remanded it to the commission for reconsideration.

THE Illinois supreme court rendered a decision in *City of Chicago v. Illinois Commerce Commission* (1954) 4 Ill2d 554, 8 PUR3d 53, 123 NE2d 500, involving the Illinois Bell Telephone Company. The court reaffirmed its previous year's ruling that a fair value rate base is required in Illinois. The court quoted at length from the Consolidated Gas Case of 1920 in which Judge Learned Hand set forth the economic basis for fair value. In noting the severe effect of inflation on the telephone company, the court said:

... In a period of inflation such as this company has had through the last two decades, an original cost rate base would require either an unjustifiably high rate of return or financial atrophy of the utility ...

The state of Maine several years ago in a telephone company case had joined the list of states requiring a fair value rate base.<sup>2</sup> For this reason I feel justified to some degree in trespassing on that portion of the utility field reserved for the power experts in mentioning the decision of the Maine supreme court in *Central Maine Power Co. v. Maine Pub. Utilities Commission* (1954) 7 PUR3d 1, 11, 109 A2d 512. The court reaffirmed its previous decision in the telephone company case and stated in remanding the case to the commission for reconsideration of its finding of value:

... In the light of what every one knows about increased costs generally, we do not believe that an increase over original cost depreciated of barely over 3 per cent is an appreciable reflection of the impact of inflation upon values ...

A NUMBER of you are undoubtedly watching with great interest the developments in New York. On May 25, 1955, the appellate division in that state in *New York Teleph. Co. v. New York Pub. Service Commission*, 8 PUR3d 229, 142 NYS2d 68, construed the

<sup>1</sup> Re *Diamond State Teleph. Co.* (1955) 8 PUR3d 286, 113 A2d 437.

<sup>2</sup> *New England Teleph. & Teleg. Co. v. Maine Pub. Utilities Commission* (1953) 98 PUR NS 326, 94 A2d 801.

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New York statute and annulled a commission order denying a rate increase. The commission had used a net cost rate base and had rejected the company's offer to prove the present value of its property. The court held that under the New York statute requiring that the commission give due regard, among other things, to a reasonable return upon the value of the property, the commission must make a finding of present value, in which reproduction cost is an indispensable ingredient. On July 8, 1955, the court of appeals granted the commission's request for leave to appeal. Affirmance by that court would make New York the twelfth state where the courts have, during the postwar period, adopted or affirmed the fair value rule.

Recognition of inflation by the regulatory body was required, in a different manner, by the Massachusetts supreme judicial court in the New England Teleph. & Teleg. Co. Case (1954) 6 PUR3d 65, 121 NE2d 896. The court rejected the company's argument that fair value was a constitutional requirement in Massachusetts, but reversed the commission's action of granting only a part of the increased rates requested. The court held that the commission had failed to recognize the effects of attrition in using a past test period. The court emphasized the necessity of a reasonable return during the foreseeable period of the ordered rates and stated that the commission's findings "reveal that the company's fears that it will not earn the allowed rate of return are well-founded." After further hearings on remand the increased rates requested by the company were approved by the commission on January 21, 1955. The commission used average net investment for 1954 as the rate base but made an allowance in earnings equivalent to attrition that would occur by reason of end-of-period investment being higher than the average investment.

SOME aspects of the Michigan supreme court decision in the case of *General Teleph. Co. v. Michigan Pub. Service Commission* (1954) 8 PUR3d 97, 103, 67 NW2d 882, are similar to the Massachusetts court's decision. The Michigan commission had refused to grant the company's full rate request and to consider test period results based partly on future estimates by the company. The lower court on appeal took testimony as to actual experience for the period the com-

pany had estimated results before the commission. The court remanded the case to the commission, which refused to consider the additional testimony on the ground that it dealt with conditions arising subsequent to the commission's order. The supreme court noted that failure to provide adequate rates in the past cannot be remedied by the commission through retroactive orders. The court then stated:

... it follows that every reasonable effort should be made by the commission to eliminate unnecessary delay and to pass judgment on facts that will not only reflect upon the present but a reasonable period in the future. The commission failed to meet this test not only at its hearing but failed again when the testimony received before the court was transmitted to it, and it was in error in informing the court that the company's "remedy in this regard is simple and expedient"; namely, the presentation of a new rate application to this commission for the proper determination of such facts affecting its revenues, expenses, and services as have occurred since the close of the record upon which our order was based. . . .

WITH some degree of trepidation, I will make one further slight trespass into the power company field. The Virginia supreme court in the *Virginia Electric & Power Co. Case* (1955) 8 PUR3d 120, 87 SE2d 139, upheld the commission's use of an end-of-period rate base in granting increased rates. The court said such a rate base "provides for revenue which is directly related to plant investment made and being made in a period of abnormal expansion and rising costs."

### *Other Developments*

EVEN though further inflation has not occurred during the past year, obviously certain expenses of the communications companies have continued to rise because of inflation which had occurred in the past, and inevitably the tax expense is one. In Virginia the courts had upheld the right of the municipalities to impose gross receipts taxes.<sup>3</sup> Thereafter, the *Chesapeake & Potomac*

<sup>3</sup> *Chesapeake & P. Teleph. Co. of Va. v. City of Newport News* (1955) 85 SE2d 345.

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Telephone Company of Virginia filed a tariff permitting the company to bill to the exchange customers within the municipality any gross receipts taxes so imposed. The commission approved the tariff as just and reasonable in an opinion of May 3, 1955, that extensively reviewed authorities, and pointed out that, since rates were fixed on a statewide basis, if subscribers within the municipality which imposed the tax did not reimburse the company, then the subscribers in other areas would be forced to make up the deficit. The principle of this opinion may well spread to other states in view of the trend toward increased municipal taxation of this type. Cities have appealed this order to the Virginia supreme court of appeals.

The recent Western Union Telegraph Company decision by the United States court of appeals for the District of Columbia circuit contained significant rulings with respect to fixing rates for a small segment of a utility's business. In *Chicago Board of Trade v. United States*, decided on June 2, 1955, the court affirmed a Federal Communications Commission order approving rate increases for quotation tickers. The court held that the standard applicable in system-wide determination of rates is inapplicable to such a situation and that every service need not result in an identical rate of return.

The court also upheld the commission's view that it had discretion in fixing rates for high-speed and low-speed service and that the differential in rates fixed did not have to be in direct proportion to the difference in speed of the two types of equipment.

**A** CLAIM of a telephone co-operative was refused in Kentucky on June 25, 1954.<sup>4</sup> The co-operative operated in the rural territory surrounding a city and claimed that in order to operate successfully it should be granted the right to furnish service within the city in lieu of the existing telephone company. The court affirmed the commission's order rejecting the argument.

The Federal Communications Commission has either decided or has pending before it some interesting cases. Another step in the eight-year-old Three Circuits Case was taken recently. The commission released a decision

on June 30, 1955, in which it reviewed the advantages that it found had resulted from competition in the international common carrier field and granted applications for competing service. Three commissioners dissented strenuously.

The commission has pending Docket No. 11164 in which it is considering a proposed change in its rules governing the granting of licenses for private relay systems for the transmission of intercity television programs. The present rules permit private systems only on an interim basis until common carrier facilities are available. The proposed rule would permit the granting of licenses for such private relays upon a consideration of the relative cost of the private system and that of the common carrier even if common carrier facilities are available.

**T**HE communications utilities are following the progress of this case closely. These are some of the questions that are being asked: Will the commission discard a traditional test—wasteful duplication of facilities—as a determinant of whether common carriers should provide service? If the rules are changed, will the result be such a multiple division of responsibility throughout the nation-wide network system that both the quality of service and effective regulation by the commission will be impaired? Finally, will the private relays be limited to remote areas for the purpose of expanding TV service or will private operators be permitted to skim the cream, leaving the less remunerative operations for the utilities?

The television field has produced another interesting situation. The status of community antenna TV systems has had an intriguing, if short, history. The Wyoming Public Service Commission, on November 29, 1954, granted a certificate of convenience and necessity for such a service. The commission reviewed conflicting opinions from other jurisdictions relating to the status of such a company as a public utility engaged in intrastate and interstate business. The FCC has indicated that it also is considering these problems.

**F**INALLY, for those of you from rapidly growing communities, you may be interested in some late cable cutting cases. We have had something of a rash of these cases in the Southwest recently. The courts over

<sup>4</sup> *H-F-C Rural Teleph. Co-op Corp. v. Kentucky Pub. Service Commission*, 269 SW2d 231.



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the country have been in discord as to whether the action lies in trespass or negligence. The cases are widespread and there is a considerable divergence of opinion. You will find most of the cases on the subject col-

lected in two recent opinions—Illinois Bell Teleph. Co. v. Chas. Ind. Co. 3 Ill App (2) 258, 121 NE2d 600, and Mountain States Teleph. & Teleg. Co. v. John C. Kelton et al. decided June 21, 1955, — P2d —.

### Developments in the Law Relating to Electric Utilities

By DAVID K. KADANE\*

ONE of the serious consequences of the postwar inflation, and one which has been given considerable attention by regulatory commissions and courts in the past year, is "attrition," the gradual reduction in rate of return caused by the necessity of connecting new customers at higher costs. A substantial and increasing number of regulatory commissions are explicitly acknowledging this phenomenon and making special provision to offset it; it should not be confused with regulatory lag, or with recognition of anticipated changes (with varying degrees of certainty) in operating expenses. When the anticipated changes include a forecast rate base as well as forecast operating results, attrition is recognized for the future period.

The District of Columbia<sup>1</sup> and Virginia,<sup>2</sup> in rate cases in which they used past periods as the test year, have expressly allowed for attrition by using a year-end rate base. The District of Columbia commission for the same reason has included construction work in progress as part of the rate base.<sup>3</sup> The state commissions in Utah<sup>4</sup> and California<sup>5</sup> have expressly allowed for attrition by using a higher rate of return, the Utah commission also making a special allowance for a return on the extra capital investment required, measured by the excess of incremental cost of the new facilities over the average cost of similar facilities on the company's books.<sup>6</sup> The Colorado commission has expressly adjusted rates to recognize attrition, by increasing both the rate of return and the valuation of the company's properties, although it would not accept projected figures.<sup>7</sup> Where

growth has been substantial, earnings in past periods have been less of a guide for the future and the New York commission considers forecasts of revenues, expenses, and average rate base for a future period.<sup>8</sup>

WHERE the utility's experience showed attrition in recent years, the Massachusetts commission made an extra allowance in the rate of return, reducing the attrition factor to the mathematical formula of .031 per cent added to the rate of return for every million dollars increase in net plant.<sup>9</sup> The Florida commission has similarly reduced the attrition factor to a mathematical formula.<sup>10</sup>

Some commissions have been slow to recognize attrition or to use forecasts. Thus, the Nebraska commission has rejected a projection of rate base and earnings into the future<sup>11</sup> and the Pennsylvania commission has been sustained in refusing in a gas rate case to adjust expenses in the test year (a past period) for higher wage and pension costs and certain higher purchased gas costs, although after the test year they were actually incurred.<sup>12</sup>

But the Michigan commission has attempted to allow for attrition by increasing the rate of return<sup>13</sup>; the Michigan court has required the commission to project conditions "for a reasonable time in the future"<sup>14</sup>; and Maryland has made use of estimated results for the calendar year in which the hearings were held.<sup>15</sup> In a rate decision in April, 1954, the Kentucky commission used estimated 1954 figures<sup>16</sup> and the Connecticut commission has stated a preference for using current rate of earnings rather than results experienced in the previous year because of the volatility of the economy.<sup>17</sup> The Pennsylvania commission has used a higher rate of return,<sup>18</sup> and the Arkansas commission, although it ignored a wage in-

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crease effective after the test period, claimed that attrition had been otherwise taken into account by the use of a year-end rate base.<sup>19</sup> The claim may be somewhat exaggerated, as the commission in fact used a December 31, 1952, rate base, an estimate of expenses based on the level of operations at that date, and a computation of revenues based on the 1952 year-end level.<sup>20</sup>

The regulatory commissions, and practitioners before them, must be alive not only to the old problem of regulatory lag (which results from the delays incident to the commission's processes) but also the problem of attrition, which results from the facts that rates are fixed prospectively and so must take into account somehow the likely effect of higher construction and operating costs on the rate of return. There seems to be a growing recognition of this problem and willingness to do something about it.

### Conflicts

**T**HE commissions continue to approach regulatory problems with rich diversity. Three examples stand out in the past year.

1. The New York and Massachusetts commissions dealt with the rate-making consequences of the hurricanes which have been hitting that area with some frequency. The New York commission allowed as an operating expense for rate-making purposes accruals to a storm damage reserve<sup>21</sup>; but the Massachusetts commission, in considering 1954 operating results, eliminated the considerable costs caused by hurricanes and would not allow as an expense one-fifth of the loss despite evidence of a five-year cycle.<sup>22</sup>

2. The choice between zone rates and company-wide rates is affected by the degree of disparity in costs of rendering service to the different areas served by a company, the expense of ascertaining such costs within a reasonable margin of error (although perhaps it would be more correct to measure the tolerance by degree of cavil rather than margin of error), the desire to avoid difficult situations along zone boundaries, and other factors. However, there is a marked tendency to eliminate zone rates.<sup>23</sup> The Virginia supreme court of appeals, affirming a commission decision eliminating zone rates, said in answer to an appeal on behalf of a more dense area:

Of course, the cost of rendering service in one area differs from the cost in another, as it varies from house to house in the same area. If the unit be broken, there would be no end of rate making. No logical line could well be drawn mile by mile through a service area.<sup>24</sup>

The New York commission, approving the elimination of rate zones, also expressed a preference for company-wide rates.<sup>25</sup> In contrast, the Federal Power Commission required a utility with a single rate to establish three rate zones, the rates in the highest zone to be four cents per Mcf or about 13 per cent more than in the lowest zone.<sup>26</sup>

3. The duty and right of a utility to extend service to "thin" territory have always been measured by weighing the essentiality of the service and the degree to which other consumers would be burdened as a result of the extension. Thus, the Massachusetts commission held that an electric utility must furnish service to a resort area if revenues would equal at least 20 per cent of the company's service and installation costs.<sup>27</sup>

But the Connecticut supreme court of errors, dealing with a statutory requirement of extensions at a prescribed maximum rate, held the act invalid as to a particular extension if the return on the required investment would be so low as to be confiscatory, or if a rate increase would be required of other consumers.<sup>28</sup>

### Accelerated Depreciation

**S**ECTION 167 of the Internal Revenue Code of 1954 permits the use, for income tax purposes, of certain depreciation methods alternative to straight-line depreciation. These alternative methods provide more rapid depreciation in the earlier years, and are analogous to accelerated amortization of defense facilities. In the past year, seven state commissions have considered certain of the resultant problems.

In all seven cases, it was held that book depreciation should be at the same rates as are applicable to properties not subject to accelerated depreciation, although in the case of Alabama this conclusion is reached by inference only.<sup>29</sup> In all seven cases, the income account is to be normalized by charging an amount equal to the difference between the

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actual taxes, and what the taxes would have been if accelerated depreciation had not been used, to "Provision for Deferred Federal Income Taxes"<sup>30</sup> or to "Provision for Future Federal Income Taxes."<sup>31</sup>

In the Alabama, Indiana, Virginia, and West Virginia decisions, this amount is to be credited on the balance sheet to an earned surplus subaccount entitled "Earned Surplus Restricted for Future Federal Income Taxes" except that the Indiana title for the subaccount is "Appropriated Surplus Arising from Deferment of Federal Income Taxes."

However, the commissions in Illinois, Maine, and Michigan require the sums to be credited not to a restricted or appropriated surplus account but to a reserve account, entitled "Reserve for Deferred Federal Income Taxes."

THE Mountain-Pacific States Conference of Public Service Commissions, at its June, 1955, meeting in Reno, Nevada, called attention to the facts that the Internal Revenue Service had not yet issued detailed regulations under § 167 and that possible repeal of the provision is under discussion. The conference expressed the opinion that immediate action by the state commissions is inadvisable except to dispose of specific applications of particular utilities, and requested the NARUC to defer any recommendations on the accounting and rate-making consequences of § 167.

The NARUC Committee on Accounts and Statistics seems bemused by (1) the idea that the depreciation accrual on the books should equal normal depreciation plus the amount of the tax "saving" or "deferral." It also regards as "worthy of consideration" (2) the use of the accelerated depreciation for book accruals, and for the depreciation allowance rate-making purposes and in computing the income tax allowance; and (3) using normal depreciation on the books and for rate-making purposes, but not allowing as an expense an amount equal to the temporary tax "saving" or "reduction"—in other words, passing along to the consumers

the amount by which taxes are presently reduced and increasing rates when the higher taxes are to be paid. None of these three methods considered by the committee was followed in any of the seven cases decided to date.

### *Atomic Energy*

A MAJOR development affecting electric utilities in the past year was the enactment of the Atomic Energy Act of 1954.<sup>32</sup> The 1946 act had set up a governmental monopoly which did not permit the AEC to license devices which would produce or use fissionable material in the course of utilizing atomic energy. Under the 1954 act, private companies are allowed to own<sup>33</sup> and operate<sup>34</sup> nuclear reactors under AEC supervision, to lease and use nuclear materials in those facilities,<sup>35</sup> and to produce nuclear materials<sup>36</sup> (title to which is in the federal government).<sup>37</sup> Under the new law patents for non-military uses of atomic energy may be obtained, subject to compulsory licensing of patents of "primary importance" applied for before September 1, 1959.<sup>38</sup>

Pursuant to these provisions, the electric industry has been organizing commercial atomic power projects. Recognizing that atomic power will be competitive with conventional fuels only after extensive experimentation with reactor types, the Massachusetts commission approved an issuance of stock by Yankee Atomic Electric Company to a utility group in the high-fuel-cost New England area, the atomic power plant to serve its stockholder companies.<sup>39</sup> The Michigan commission approved the expenditure by Detroit Edison Company of \$5,000,000 as its share of the cost of a \$45,000,000 project, to be charged to Account 801—Miscellaneous General Expense<sup>40</sup>; the participants in that group are not interconnected. Legal problems relating to tax treatment and the possible effect of the Public Utility Holding Company Act of 1935 remain to be resolved, as well as accounting consequences for utility participants which will not share in the power produced.



### Footnotes

<sup>1</sup> Re Potomac Electric Power Co. (DC 1955) 8 PUR3d 76.

<sup>2</sup> Arlington County Board of Supervisors v. Vir-

ginia Electric & Power Co. (Va Sup Ct App 1955) 8 PUR3d 120, 87 SE2d 139.

<sup>3</sup> Re Potomac Electric Power Co. *ibid.*, 90.

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- <sup>4</sup> Re Mountain States Teleph. & Teleg. Co. (Utah 1953) 2 PUR3d 75, 90.
- <sup>5</sup> Re Pacific Gas & E. Co. (Cal 1952) 96 PUR NS 493, 511.
- <sup>6</sup> 2 PUR3d at 91.
- <sup>7</sup> Re Mountain States Teleph. & Teleg. Co. (Colo 1953) 1 PUR3d 129, 144, 146.
- <sup>8</sup> Re Long Island Lighting Co. (NY 1955) 7 PUR3d 140. Rochester Gas & E. Corp. (NY 1952) 93 PUR NS 263. Rule IV-7 of the commission's Rules of Procedure provides that "If the utility involved believes that there will be changes in revenues, expenses, or income which should be considered in determining reasonable rates for the future, it shall present competent testimony to support such estimates. Speculative or conjectural data are not acceptable and all estimates must be explained in detail and the bases definitely established."
- <sup>9</sup> Re New England Teleph. & Teleg. Co. (Mass 1955) 7 PUR3d 580. The need for using contemporary data to offset attrition had been emphasized in New England Teleph. & Teleg. Co. v. Department of Pub. Utilities (Mass Sup Jud Ct 1954) 6 PUR3d 65, 121 NE2d 896, 906, 907.
- <sup>10</sup> Re Florida Teleph. Corp. (Fla 1953) 1 PUR3d 18, 23.
- <sup>11</sup> Re Northwestern Bell Teleph. Co. (Neb 1954) 5 PUR3d 24.
- <sup>12</sup> City of Pittsburgh v. Pennsylvania Pub. Utility Commission (Pa Super Ct 1955) 8 PUR3d 205, 112 A2d 826; Public Utility Commission v. Manufacturers Light & Heat Co. (Pa 1954) 5 PUR3d 346, 374.
- <sup>13</sup> Re Michigan Bell Teleph. Co. (Mich 1954) 5 PUR3d 301, 310, 325.
- <sup>14</sup> General Teleph. Co. of Michigan v. Public Service Commission (1954) 341 Mich 620, 8 PUR3d 97, 67 NW2d 882, citing McCardle v. Indianapolis Water Co. (1926) 272 US 400, PUR1927A 15, which has interesting language at pp. 408, 409.
- <sup>15</sup> Re Chesapeake & P. Teleph. Co. of Baltimore City (Md 1954) 5 PUR3d 161, 170.
- <sup>16</sup> Re Union Light Heat & P. Co. Docket Nos. 2568, 2640. See also Re Southern Bell Teleph. & Teleg. Co. (1954) 6 PUR3d 18, 24.
- <sup>17</sup> Re Southern New England Teleph. Co. Docket 8834.
- <sup>18</sup> Public Utility Commission v. Commonwealth Teleph. Co. Complaint Docket No. 15864, November 9, 1953.
- <sup>19</sup> Re Southwestern Bell Teleph. Co. (1953) 2 PUR3d 1, 8.
- <sup>20</sup> *Ibid.*, p. 23.
- <sup>21</sup> Re Long Island Lighting Co. (1955) 7 PUR3d 140.
- <sup>22</sup> Re New England Teleph. & Teleg. Co. (1955) 7 PUR3d 580.
- <sup>23</sup> See, e.g. Harrisburg Steel Corp. v. Pennsylvania Pub. Utility Commission (1954) 176 Pa Super Ct 550, 7 PUR3d 609, 109 A2d 719.
- <sup>24</sup> Arlington County Board of Supervisors v. Virginia Electric & Power Co. (1955) 8 PUR3d 120, 133, 87 SE2d 139.
- <sup>25</sup> Re Long Island Lighting Co. (1955) 7 PUR3d 140.
- <sup>26</sup> Re Northern Nat. Gas Co. Opinion No. 281 (1955) 9 PUR3d 8, rehearing denied, July 12, 1955.
- <sup>27</sup> Dr. Adelard O. Demers, DPU 11016, July 26, 1954.
- <sup>28</sup> Cedar Island Improv. Asso. v. Clinton Electric Light & P. Co. (1955) 9 PUR3d 184, 114 A2d 535.
- <sup>29</sup> Alabama Power Co. Nondocket 1679, February 28, 1955.
- <sup>30</sup> Re Indiana & Michigan Electric Co. et al. (1954) 7 PUR3d 26.
- Maine: Bangor Hydro-Electric Co. U. No. 2164, January 12, 1955.
- Michigan: Detroit Edison Co. Docket No. D-1282-A-54.2, November 5, 1954.
- Illinois: Commonwealth Edison Co. No. 42,105, June 13, 1955. This order restricts the use of funds arising from this source to purposes for which securities may be issued, and expressly leaves undecided the rate-making consequences.
- <sup>31</sup> Virginia: Appalachian Electric Power Co. Case No. 12665, June 6, 1955.
- West Virginia: Appalachian Electric Power Co. Case No. 4289, May 26, 1955.
- <sup>32</sup> Public Law 703, 83rd Congress, approved August 30, 1954.
- <sup>33</sup> Section 41.
- <sup>34</sup> Section 103, commercial application; § 104, research and development.
- <sup>35</sup> Section 53, domestic; § 54, foreign.
- <sup>36</sup> Section 41.
- <sup>37</sup> Section 52.
- <sup>38</sup> Section 153.
- <sup>39</sup> Re Yankee Atomic Electric Co. (1955) 8 PUR3d 114.
- <sup>40</sup> Re Detroit Edison Co. Docket No. 1282-A-55.1, March 23, 1955.

## Some Legal Developments in the Interstate Sale and Transportation of Natural Gas

By WILLARD W. GATCHELL\*

**I**N its report for 1955 the standing committee on public utility law under the

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chairmanship of Clarence Ross has given in significant arrangement an excellent analysis of the trends in the several divisions of public utility law. With vivid recollections of some of the battles in which the Federal Power Commission's lawyers have been engaged I shall try to give you my impression of what has happened in the field of natural gas,

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and in giving you these purely personal observations you will understand that while colored by my advocacy they do not necessarily represent any official views. With no desire to usurp the well-discharged function of your public utility committee, I nevertheless find it difficult to separate my thinking from the agitation of the past year.

The compulsion of economic interest frequently determines the order in which legal questions are presented and decided. In the natural gas industry the impact of the Supreme Court decision on the Phillips Petroleum Company on June 7th a year ago (347 US 672, 3 PUR3d 129, 98 L ed 1035) has given to the problems of independent producers overshadowing significance, and the adjustments are not yet ended. We might, therefore, deal first with the problems confronting producers.

CONTRARY to intimations in certain reports, the ways of administrative agencies need never be a fearsome maze, especially to technicians otherwise skilled in judicial procedures. Nevertheless, what to do to protect a natural gas client and how to do it is a matter of uncertainty to some attorneys representing independent producers and others before the Federal Power Commission. I do not agree, however, with those who advocate serious and crippling reforms merely because the problems of one industry do not in all respects resemble the problems of other industries.

When the sweeping nature of the Supreme Court's decision in the Phillips Petroleum Company Case was realized, it was inevitable that procedural paths be opened promptly or chaos would result. The commission needs no defense for its expeditious adoption of procedural rules for the guidance of those independent producers who were suddenly faced with the necessity of complying with the requirements of the Natural Gas Act, which they had regarded with detached interest since 1938. The commission acted wisely in adopting general rules as quickly as possible, and in due time the courts will decide whether it acted in conformity with law.

Some producers moved on three fronts to avoid the regulation imposed by the statute. First, they reargued the Phillips Case at every opportunity—in its particular application to individual companies and in response

to the commission's request for suggestions and assistance on the form, scope, and language of regulations of general applicability; second, they prepared for legislative exemption along modified lines of the Kerr and Priest bills of several years ago; third, they sought court relief.

REARGUMENT of the Phillips decision was futile, for the commission had been overruled by the Supreme Court and had no intention of evading its plain responsibility. Without any applicable and workable regulations or during any interim while new regulations were being debated, it would have been to the obvious advantage of every independent producer to increase its rates as much as possible in anticipation of subsequent regulation and otherwise to attempt to interpose obstacles to the regulation directed in the statute. The commission's rules outstanding on June 7th were drawn to meet the usually complex situations under which interstate pipeline companies operate—not the entirely different conditions prevailing in the sale and transportation of natural gas by independent producers.

Legislatively, the producers had to wait until the 84th Congress met in January but, notwithstanding strenuous efforts and the support of the Federal Power Commission, the exempting amendments were only passed by the House of Representatives, postponing further action in the Senate until the next session of Congress.

The progress of the producers judicially has been equally slow. A few injunctions were sought and only one actually attained—the Union Producing Company Case, of which more later. Some ten companies sought court review of the commission's orders adopting the procedural rules for producers, six in the United States court of appeals for the fifth circuit, and four in the tenth circuit. The petitions in the fifth and tenth circuits were direct petitions for appellate review and it is expected that the tenth circuit will hear arguments in October and the fifth circuit in December. Some of these companies seeking review of the commission's general regulations requested a stay and the fifth circuit granted the stay to Magnolia Petroleum Company (Case No. 15320) and Ohio Oil Company (Case No. 15321). The tenth circuit, after hearing oral argument on the petition



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of Amerada Petroleum Corporation for a stay declined to stay the commission's regulations in the cases pending in that court.

**M**AGNOLIA PETROLEUM CORPORATION also sought an injunction and a declaratory order in a United States district court in Texas but Judge Connally refused to intervene until the administrative process had been followed.<sup>1</sup> The Stanolind Oil & Gas Company sought an injunction in the United States district court in Tulsa, Oklahoma, against the United States and the Attorney General. That court, however, held the matter in abeyance until decisions are reached by the United States courts of appeals in the review cases.<sup>2</sup>

The Union Producing Company was more successful in the United States district court for the District of Columbia. The district judge granted a temporary restraining order against the commission, taking a dim view of a Supreme Court decision in another case, the holding of which he said if applied in the Union Producing Case would call for denial of the restraining order. Apparently, the district judge attributed a measure of instability to the reasoning of our highest tribunal.<sup>3</sup> That case is on appeal to the court of appeals for the District of Columbia circuit which heard oral argument on June 30th and has it under consideration. (CA DC, Nos. 12583-4.)

Another judge in the same district found that a producing company had not exhausted its administrative remedy and denied a temporary restraining order under practically identical circumstances, saying that an appeal under the Natural Gas Act could be sought upon the entry of a final commission order.<sup>4</sup>

The independent producers are also in difficulty by reason of state action. In *Natural Gas Pipeline Co. v. Oklahoma Corp. Commission and Panoma Corp.* (1955) 348 US 868, 8 PUR3d 7, the United States Supreme Court held that the state of Oklahoma could not fix a minimum price to be paid for natural gas, after its production and gathering have ended, by a company which transports the gas for resale in interstate commerce, because such regulations are within the exclusive jurisdiction of the Federal Power Commission under the Natural Gas Act.

**T**HE United States Supreme Court also held unconstitutional a Texas statute

levying a tax on the gathering of gas.<sup>5</sup> The full effect of the Oklahoma minimum price upset has not yet been determined, for there are many contractual and other situations involved. However, the failure of El Paso Natural Gas Company to pay the Texas gathering tax under protest was held by the Federal Power Commission to justify exclusion of the tax payments from El Paso's cost of service in fixing the interstate rates because El Paso had failed to pay the tax under protest.<sup>6</sup> The commission has granted rehearing on this.

From time to time the commission has been importuned to define the scope of its jurisdiction over independent producers in the light of the Supreme Court decision in the Phillips Petroleum Company Case, *supra*. No one knows how many independent producers are actually subject to the Natural Gas Act, the estimates ranging from 2,000 to 4,500. A substantial proportion of the producers sell their natural gas through an operator which makes whatever contractual arrangements it can with the purchasing interstate pipelines and pays the nonoperators at the same rate the operator receives. The nonoperators under these arrangements frequently reserve the right to take back their gas in kind after it has been processed for the removal of liquid hydrocarbons.

**N**o similar complications were involved in the sales by Phillips Petroleum upon which the Supreme Court passed on June 7th a year ago. Consequently it has been argued that the commission should either confine itself to the type of sales in which Phillips engaged or by interpretative regulations so define its understanding of the scope of the Natural Gas Act as to enable independent producers to know clearly whether they come within the statute or not.

Refusing to avoid its responsibilities to promptly and fairly administer the regulatory scheme as applied to independent producers and others or to explore the vacuum of general jurisdictional interpretations, the commission has waited for actual situations to be presented before deciding what types of sales and transportation come within the statute. Without deciding the question of jurisdiction, the commission did, however, relieve nonoperators of the burdens of filing for certificates of public convenience and neces-



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sity where, as in the illustration mentioned, the operator alone makes a sales contract with the interstate transporter. In due time the commission will make its jurisdictional decisions.

A jurisdictional question along this line is presented where a number of nonoperating producers made an agreement with three operating companies under which the operators gather gas from the producers' wells, transport it to units where the liquid hydrocarbons and water are removed, and thence to the gathering system of an interstate pipeline company where the gas for the first time is metered. All of the facilities from the well-heads to the delivery points are jointly owned by the producers who ratably share expenses and revenues, with the right of each producer to take delivery, at his expense of his share of the gas produced in lieu of the proceeds from the sale whenever the producer provides a facility to which the operator can make delivery.

**M**OST of the contract arrangements in this case resulted from state laws of Mississippi, court decisions, and regulations of the Mississippi Oil and Gas Board, which has authority to approve or compel pooling or unitization agreements among owners of interests in a common field. The producers, however, wanted to sell to other operators than those with which they were dealing and the operators in turn would sell to a different pipeline company. Under these circumstances the producers filed petitions for authority to abandon their current operations, while one of the operators requested a certificate to sell products from its own leases in the field to a pipeline then taking deliveries.

After a hearing in the consolidated cases, the commission's examiner held that Congress did not intend to regulate wellhead, lease, or field unit sales of natural gas and dismissed the petitions for lack of jurisdiction.<sup>7</sup>

A second jurisdictional case, also still pending, involves the wellhead sales of casing-head gas from which the liquid hydrocarbons are later removed and the dry gas transported in interstate commerce. The petitioners in these cases claim that casing-head gas is not natural gas within the meaning of the act, that the sales of casing-head gas are not sales for resale but for manufacture

and that they are not sales for resale in interstate commerce. The examiner, however, on April 4, 1955, held the sales to be jurisdictional.<sup>8</sup>

Another producer, J. M. Huber Corporation, relying on an escape clause in its contract with an interstate pipeline company, filed a notice of cancellation of its interstate sale, claiming the right to abandon because § 7(b) of the Natural Gas Act, 15 USCA § 717f(b), relates to the abandonment of facilities subject to the jurisdiction of the commission and not to sales, and all of its facilities involved are in production and gathering, thereby being exempt under § 1(b) of the act.

**T**HE examiner held that the sales were jurisdictional and being jurisdictional must be made through facilities which are jurisdictional, and the abandonment could not be completed without commission approval, notwithstanding the lack of a certificate of public convenience and necessity. The company also argued its contract right to abandon, but the examiner held that Congress may properly enact legislation which has the effect of abrogating existing contract rights.<sup>9</sup>

Exceptions have been filed in the Dixie, Deep South, and J. M. Huber cases, and these are still pending before the commission.

In addition to the proceedings before the commission on Huber's application and a complaint against it by the pipeline purchaser, Northern Natural Gas Company, the commission sought an injunction against Huber's abandonment in a proceeding brought in its own name in the United States district court for the district of New Jersey (Civil Cause, No. 244-55). The court first granted a temporary injunction and on August 16, 1955, granted a permanent injunction. Among other things, the court said that the sales were jurisdictional and could not be made without facilities, so that there must be jurisdictional facilities. The lack of a certificate of public convenience and necessity, the court said, did not authorize abandonment since the actions of Huber had brought it under the statute.

The producers are also uncertain as to the formula the commission will apply in fixing their rates. A number of the rate increases have been suspended and subsequently allowed to go into effect under bond. Hear-

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ings must be held on these cases and some hearings have been set by the commission. In its Opinion No. 269 ([1954] 3 PUR3d 396), the commission allowed the Panhandle Eastern Pipe Line Company, an interstate transporter, the field price for its own produced gas. It also allowed the El Paso Natural Gas Company (likewise an interstate transporter) the field price for its own produced gas. Nevertheless the commission stated that it was not prepared at this time to permit its decision in the Panhandle Eastern Case to stand as a precedent which in the future would exclude consideration of other methods and principles in determining the amount to be allowed for gas produced by a pipeline company or by an independent producer (FPC Opinion No. 278, November 26, 1954, CCH Util LR Fed, par. 9438). Later the commission granted rehearing. The commission's order in the Panhandle Eastern Case is under review by the United States court of appeals for the District of Columbia circuit.

FINDING some confusion among independent producers as to how to establish the reasonableness of their rates in those cases where increases have been suspended and hearings ordered, the staff has held informal conferences where some of the principles and methods of proof have been discussed with producers, pipelines, and distributing companies. The staff is striving to expedite these cases as much as reasonably possible and to give to the commission, for its ultimate decision, all of those facts which in the staff's or the companies' opinion may be of assistance in passing upon the producer rates to the end that consumers may be protected against exploitation by natural gas companies (which the Supreme Court has said is the primary aim of the regulation of the act), and at the same time to insure fair treatment for the producers, and at the minimum of administrative expense. Issues thus presented offer for the producers, interstate pipeline companies, distributing companies, consumers and related groups, and the staff one of the toughest problems to come before the commission under the Natural Gas Act. Nevertheless, we do not regard this problem as beyond solution, nor do we intend, so far as lies within our power, to have the regulation which Congress prescribed bogged down in a maze of argument or uncertainty.

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I SPOKE a moment ago of the contention that neither Congress nor the commission could by regulation abrogate an outstanding contract. Contracts have been relied upon in other cases to avoid the regulatory processes of the Natural Gas Act.

A distributing company sought to prevent an interstate pipeline company from putting into effect a new schedule of rates which were not the same as lower rates carried in an outstanding long-term contract. The United States court of appeals for the fifth circuit refused to restrain a pipeline company from putting the new rate schedule into effect and said that a distributing company must first seek such relief as it may be entitled to from the commission and not from the courts.<sup>10</sup>

In the Tyler Case the court said that the conclusion reached by the lower court was not in conflict with a decision by the third circuit in the case of *Mobile Gas Service Corp. v. Federal Power Commission* (CA3d 1954) 6 PUR3d 282, 215 F2d 883. The third circuit had reversed a commission decision and said that § 4 of the Natural Gas Act did not authorize the commission to accept for filing a rate schedule increasing existing contract rates without a determination by the commission of the unreasonableness of the existing contract rates. The United States court of appeals for the District of Columbia circuit followed the third circuit in holding that the corresponding section of the Federal Power Act—§ 205—likewise did not permit the filing of a new rate schedule at higher rates until the commission had first found the existing contract rates to be unreasonable.<sup>11</sup> The United States Supreme Court has granted certiorari in both the *Mobile* and *Sierra Pacific* cases. 348 US 950 and 75 Sup Ct 446, 447, 785. Needless to say, the commission has the support of a considerable segment of both the gas and electric industries in the decisions in the *Mobile* and *Sierra Pacific* cases, for a materially significant phase of the rate regulatory scheme is involved.

ANOTHER rate contract was brought forward in a case where the commission had ordered a refund by an interstate pipeline company to a purchasing company. The interstate pipeline company failed to follow its contract filed as a rate schedule and the commission ordered a refund to the purchas-

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ing company. The fifth circuit said that the commission's action was proper enforcement of the filed contract and not retroactive rate making.<sup>12</sup> This case is discussed on page 62 of your Public Utility Committee report.

On August 1st the United States court of appeals for the sixth circuit held a commission rate order to be invalid, although the order had not been challenged when issued.<sup>13</sup> The Federal Power Commission was not a party and did not participate in this case.

Other significant rate cases are referred to in the committee's report, but I have exceeded my time and cannot discuss them here. Against what seemed to me to be unwarranted attacks on administrative processes generally which have appeared in some quarters, may I say that the legal staff of the Federal Power Commission, and indeed the commissioners and the technical staff as well, are fighting vigorously and persistently

to insure fairness, justice, and efficiency in the regulatory processes for which the commission is responsible. It is our belief that the commission has demonstrated the workability of its administrative processes within the constitutional principles and statutory provisions of our judicial and administrative system, where the rights of all the parties are respected and protected. Indeed, many of the so-called reforms being advocated in some quarters would not only be more burdensome than the present procedures but would not insure fairness and equity, which is the commission's constant aim, nor would they place responsibility upon the heads of regulatory agencies appointed by the President with the advice and consent of the Senate. I mention these considerations in connection with the work of your section of the American Bar Association, because unless your attention is given to them you may find your rights lost by default.



## Footnotes

<sup>1</sup> *Magnolia Petroleum Co. v. Texas Illinois Natural Gas Pipe Line Co.* (DC Tex 1954) 130 F Supp 890.

<sup>2</sup> *Stanolind Co. v. United States* (DC Okla Civil No. 3624).

<sup>3</sup> *Union Producing Co. v. Federal Power Commission* (DC DC 1954) 7 PUR3d 587, 127 F Supp 88.

<sup>4</sup> *Gulf Oil Corp. v. Federal Power Commission* (DC DC 1955) 128 F Supp 446.

<sup>5</sup> *Michigan-Wisconsin Pipe Line Co. v. Calvert* (1954) 347 US 157, 98 L ed 583.

<sup>6</sup> *Re El Paso Natural Gas Co.* (1955) FPC No. G-2018, Opinion No. 278, CCH Util LR Fed, par. 9438.

<sup>7</sup> *Re Dixie Pipe Line Co.* FPC Docket No. G-

2401 et al. June 13, 1955.

<sup>8</sup> *Re Deep South Oil Co. of Texas, Humble Oil & Refining Co., and Shell Oil Co.* (FPC Dockets Nos. G-2952, G-5261, and G-4671.)

<sup>9</sup> *Re J. M. Huber Corp.* FPC Dockets Nos. G-3038, G-4326, and G-4957, decided by the examiner June 14, 1955.

<sup>10</sup> *Tyler Gas Service Co. v. United Gas Pipe Line Co.* (CA5th 1954) 7 PUR3d 481, 217 F2d 73.

<sup>11</sup> *Sierra Pacific Power Co. v. Federal Power Commission* (CA DC 1955) 8 PUR3d 279.

<sup>12</sup> *United Gas Pipe Line Co. v. Federal Power Commission* (CA5th 1955) 8 PUR3d 533, 220 F2d 706.

<sup>13</sup> *Michigan Consolidated Gas Co. v. Panhandle Eastern Pipe Line Co.*

## Report on Transportation Developments, Other than Air

By STANFIELD JOHNSON\*

DEVELOPMENTS during the past year in the general field of public utility law, as reported by our standing committee, reflect significant variations in the competitive

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environments of different types of utilities.

Thus, this record shows continuing activities of a major character by counsel for electric, gas, and telephone companies in rate increase proceedings and substantial portions of the report are devoted to decisions involving questions of apportionment, depreciation, rate of return, and valuation.

With respect to common carriers by rail,

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truck, and water, however, economic forces acted as a deterrent to upward revisions of rates that would have been justified by increased wages and inadequacy of revenues measured by established legal standards.<sup>1</sup> As a consequence, the reported decisions emphasize concern of their counsel with regulatory problems incident to reductions in rates and service adaptations.

These differences are due to the intensely competitive character of the transportation complex of our country, a factor which exercises a particularly dominant influence in a period of economic recession or adjustment, such as was experienced in the latter part of 1953 and the first eight months of 1954.<sup>2</sup> While this accounts for the absence of any new general rate increase proceedings during that period, they may be unavoidable on occasion in the future, if past experience is any guide.

**S**TATISTICS—albeit dull—provide the only convenient measure of the magnitude of the surface transportation system of the United States, which comprises a vast network of highways, waterways, pipe and railroad lines extending into every state and county.

Our highways and streets cover 3,400,000 miles and represent a public investment of over \$87 billion, with further expenditures of more than \$100 billion proposed in the next decade. They are used by over 48,000,000 automobiles, 10,000,000 trucks and buses, including 700,000 highway freighters of the type operated in intercity haulage.

The inland waterways are composed of the Great Lakes and 28,400 miles of rivers, improved at a public cost of over \$3.5 billion, on which a growing fleet of common, contract, and private carriers operate.

An expanding system of pipelines now embraces 527,000 miles for the movement of crude oil and petroleum products and for the transmission and distribution of natural gas.

The railroads of this country, representing a privately financed net investment of over \$26 billion, operate 2,100,000 freight cars and 40,000 passenger train cars over a track mileage approximating 375,000 miles.<sup>3</sup>

Speaking of the development of this dynamic system, a Cabinet committee appointed by President Eisenhower in 1954, to study transport policy and organization, recently said:

*Within the short span of one generation this country has witnessed a transportation revolution.—All elements of the economy have been profoundly affected—investors in transportation property, geographic regions, distribution, individual shippers, the taxpayer, the ultimate consumers of goods and services. As late as 1920, the railroads held a virtual monopoly of intercity transportation with the exception of areas served by water. In striking contrast, there is available today a wide selection of transport methods for the movement of goods and people from one place to another with economy, expedition, and safety.<sup>4</sup>*

Note should be made of the fact that this committee concluded "adjustment of regulatory programs and policies to these competitive facts is long overdue" and recommended certain legislative changes to this end.<sup>5</sup>

It is this "general atmosphere of pervasive competition"<sup>6</sup> that explains emphasis during the past year on rate and service adjustments in reported decisions involving regulation of the transportation industry under the framework of existing legislation. Since the rate aspect will be discussed in some detail by a subsequent speaker, my further comments will be confined to a few outstanding decisions pertaining to the latter.

Declining railroad participation in intercity traffic intensified their interest in the movement of highway trailers on railroad flatcars during the past several years.<sup>7</sup> Important legal questions have been raised as to the conditions under which these operations, commonly called "piggy back," could be lawfully conducted under the Interstate Commerce Act.

**A** NUMBER of these issues were set at rest by the Interstate Commerce Commission in a report, dated July 30, 1954, issued under the declaratory order provision of § 5(d) of the Administrative Procedure Act, 5 USCA § 1004(d).<sup>8</sup> Perhaps most significant was the commission's rejection of the contention of various motor carrier associations that transportation of freight-laden trailers on railroad bills of lading and at rail tariff rates open to the public constituted carriage by motor vehicle for which a certificate of public convenience and necessity was prerequisite under Part II of the



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Interstate Commerce Act. The commission held this service constituted transportation by railroad in line haul movement between termini and that collection and delivery of the trailers within terminal areas were subject to exemption under the terms of the act as an incident of such railroad transportation service. The commission recently rendered a decision sustaining the legality of rates published by a number of eastern railroads for the transportation on flatcars of freight in railroad-owned or -operated trailers. Among other things, it rejected the contention of a private carriers' association that the tariffs were discriminatory because the rates only applied to freight handled in trailers owned or leased by these railroads.<sup>9</sup>

**ROCK ISLAND MOTOR TRANSIT CO.**—Common Carrier Application, 63 MCC 91, is another Interstate Commerce Commission decision of major importance. Its protracted legal prelude reflects a long-standing controversy between the railroad and trucking industries over use of public highways by the former in providing diversified and co-ordinated services to shippers.

The transit company, a wholly owned subsidiary of the Chicago, Rock Island & Pacific Railroad Company, was authorized in 1938 and 1944 to acquire by purchase from non-railroad affiliated truck lines certain certificated operating rights,<sup>10</sup> which completed its truck route between Chicago and Omaha and enabled it to provide an unrestricted trucking operation over this route, as well as a co-ordinated and substitute rail-truck service. The commission subsequently reopened the acquisition dockets and imposed certain restrictions, which became effective in 1951, designed to limit the operations of the transit company over this route to those which would be auxiliary and supplementary of the rail service.<sup>11</sup> One of the restrictions required that traffic be handled only under railroad billing and at rail tariff rates, and another provided that no shipments should be transported by the transit company between, or through, or to, or from more than one of specified principal cities on the route involved. It should be observed that restrictions of this character have generally been imposed by the commission in acquisition and certificate proceedings involving motor carrier operations by rail affiliates.

The commission's power to impose these restrictions on the transit company was sustained in 1951 by the Supreme Court in *United States v. Rock Island Motor Transit Co.* 340 US 419, 88 PUR NS 291, 95 L ed 391, with Justices Black, Douglas, Jackson, and Burton dissenting, in a decision which reversed the judgment of a three-judge statutory court.<sup>12</sup>

Shortly thereafter, the transit company filed an application under § 207 of the Interstate Commerce Act seeking a certificate of public convenience and necessity authorizing unrestricted motor carrier operations and this was approved by the commission in the latter part of 1954, subject to its reserved right to impose thereafter such limitations as the public interest might require.<sup>13</sup> The commission's decision was based on evidence, not previously considered by it, as to the need in the public interest for unencumbered operations by the transit company. This was submitted by numerous shippers, commercial organizations, public bodies, a number of independently operated truck lines, and by the applicant.

The commission rejected the contention of ten protesting truck lines and the American Trucking Association, Inc., that it had no statutory authority to grant the type of certificate sought and must impose key-point and other restrictions on a rail affiliate. The decision stated that the policy reflected by such restrictions should be relaxed where circumstances clearly established the following conditions:

**FIRST**—"that the grant of authority has not resulted and probably will not result in the undue restraint of competition." As to this, the decision noted that the transit company "throughout the years has worked for the development and betterment of the (motor carrier) industry without regard to its being the subsidiary of a railroad" and that competitive nonrailroad affiliated truck lines had grown during the long period of its unrestricted truck operations.<sup>14</sup>

**Second**—"that the public interest requires the proposed operation, which the authorized independent motor carriers have not furnished, except where it suited their convenience." In this connection, the commission observed that the transit company had been the only carrier which provided daily



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scheduled operations over the route involved for the movement of less-than-truck-load shipments. Competitive carriers had refused to accept such shipments from their motor carrier connections and had even refused to accept some truck-load shipments of low-rated commodities. The decision concluded that traffic available to the transit company under existing restrictions would not warrant continuance of its operations and that the net result of the restrictions "is clearly not in the public interest."<sup>15</sup>

This incisive decision of the Interstate Commerce Commission does not close the books on this drawn-out controversy, how-

ever, for the American Trucking Association, Inc., and a number of motor carriers have filed a complaint seeking injunctive relief in the United States district court for the District of Columbia.<sup>16</sup>

THESE are but a few high lights of a year marked by intensification of the competitive struggle in surface transportation. With a note of envy, I conclude with the hope that an expanding economy and modernized regulation will create a transportation millennium some day in which we can share such legal problems as adequate return more fully with counsel in other utility fields.



### Footnotes

<sup>1</sup> The class I railroads of the United States, for example, showed a return on net investment in 1954 of only 3.28 per cent under accounting regulations of the Interstate Commerce Commission and of 2.72 per cent if the accounts are adjusted by eliminating tax deferrals resulting from amortization under § 168 of the Internal Revenue Code.

<sup>2</sup> The 68th annual report of the Interstate Commerce Commission, page 1, November 1, 1954, observed:

The year covered by this report has been one of adjustment by carriers and shippers to changed general economic conditions, of continued strain in carrier relations, and of much public discussion of basic transportation questions.

<sup>3</sup> Track miles include 223,000 route miles, additional main line trackage and yard and switch trackage.

<sup>4</sup> *Revision of Federal Transportation Policy*, p. 1 (U. S. Government Printing Office, April, 1955). The committee was composed of the Secretary of Commerce (chairman), the Secretary of Defense, and the Director of the Office of Defense Mobilization. *Ad hoc* participating members were the Secretaries of the Treasury and of Agriculture, the Postmaster General, and the Director of the Bureau of the Budget.

<sup>5</sup> *Ibid.*, p. 2.

<sup>6</sup> *Ibid.*, p. 2.

<sup>7</sup> Measured by ton miles, the railroads performed 75 per cent of total intercity freight service in 1930 and 51.6 per cent in 1953, the latest year for which figures are available. The balance of service in the latter year was provided as follows: motor carrier, 17.38 per cent; inland waterways, 17.02 per cent; pipelines (oil), 13.93 per cent; and airways, .04 per cent. The 68th annual report of the Interstate Commerce Commission, November 1, 1954, p. 30.

<sup>8</sup> Movement of Highway Trailers by Rail, 293 ICC 93.

<sup>9</sup> Investigation and Suspension Docket No. 6214, Trailers on flatcars—eastern territory (mimeographed), decided July 6, 1955.

<sup>10</sup> Rock Island Motor Transit Co.—Purchase—White Line Motor Freight (1938) 5 MCC 451, and Rock Island Motor Transit Co.—Purchase—Friedrickson (1943) 39 MCC 824.

<sup>11</sup> Rock Island Motor Transit Co.—Purchase—White Line Motor Freight (1946) 40 MCC 457; (1949) 55 MCC 567.

<sup>12</sup> Rock Island Motor Transit Co. v. United States (1949) 90 F Supp 516.

<sup>13</sup> Rock Island Motor Transit Co.—Common Carrier Application, 63 MCC 91.

<sup>14</sup> *Ibid.*, pp. 102 and 106.

<sup>15</sup> *Ibid.*, pp. 102, 103, 107, 108.

<sup>16</sup> American Trucking Association, Inc. v. United States, Civil Action No. 3171-55.

## Recent Developments Affecting Air Carriers

By O. D. OZMENT\*

As you know, air carriers are regulated primarily under the Federal Civil

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Aeronautics Act (49 USCA § 401 *et seq.*), and most of what may be called aviation law stems from the administration and interpretation of that and related federal statutes. Because of this fact, and perhaps also because I am an employee of the Civil Aeronautics

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Board, the federal regulatory agency for aviation, my comments will be directed to developments under the Civil Aeronautics Act.

For the most part, the day-to-day regulation of air carriers during the past year has followed the pattern heretofore established. In the rate field, the board has found it necessary to revise and make uniform the rates which the Postmaster General pays to the trunk-line air carriers for transporting the mail. Under the present method of disbursing mail pay, which was established by a Presidential Reorganization Plan in 1953,<sup>1</sup> the Post Office Department pays the air carriers for mail actually transported at rates fixed by the board at the level necessary to compensate the carriers for the service rendered. Subsidy mail pay is disbursed by the board. Since the Post Office Department quite naturally desires to ship the mail at the lowest possible rate, the board has found it necessary to fix uniform rates for mail transported by the different trunk-line carriers between the same cities so that each carrier will receive its fair share of the mail. The board accomplished this by providing a multi-element rate based on a standard charge for line haul between cities, plus a standard terminal or cost-of-handling charge fixed in terms of classification of cities according to their traffic volume.<sup>2</sup> This method of rate fixing, not heretofore employed by the board, has been used by the Interstate Commerce Commission in fixing mail rates for the railroads.

ANOTHER interesting development has involved the use of the board's exemption power in connection with the transportation by air of so-called surface or 3-cent mail. As many of you may know, the Post Office Department for the past two years has been shipping first-class or 3-cent mail between certain selected cities by aircraft, rather than by the railroads over which this class of mail normally moves. The air carriers used by the Post Office Department in carrying this mail were those who had certificates of public convenience and necessity authorizing the transportation of mail, and the 3-cent mail has been transported on the theory that these carriers are authorized to transport whatever

mail the Postmaster General may tender, irrespective of the rate of postage which it bears. Conversely, an air carrier ordinarily may not carry mail without obtaining authority from the board. While the normal authority is a certificate of public convenience and necessity, the board under § 416 of the act<sup>3</sup> may by summary proceedings exempt carriers from the requirement that they obtain a certificate, and an exemption when obtained serves for all practical purposes as operating authority. There are three domestic all-cargo carriers, Slick, Flying Tiger, and Riddle, and the Postmaster General desired to use the services of these cargo air carriers in moving the surface mail. The board this spring issued exemption authority to permit them to transport the surface mail, pending a determination as to whether they should be issued mail carrying certificates. Judicial review of these exemption orders has been sought by some of the air carriers who are certificated for mail and who will now have to share the surface mail with the cargo air carriers, and the cases will be heard this fall by the court of appeals for the District of Columbia.<sup>4</sup> The principal claim in the review proceeding is that the board lacks statutory authority to authorize the transportation of mail by exemption. Interestingly enough, the court of appeals has before it not only this fight between air carriers over the surface mail, but also a claim of the railroads that the surface mail is theirs and that the Postmaster General lacks authority to ship it by air at all.<sup>5</sup>

THE most important development in the route field involves congressional action. In May of this year, the Congress amended the Civil Aeronautics Act in such fashion as to direct the board to issue permanent certificates of public convenience and necessity to the so-called "local service" or "feeder" airlines.<sup>6</sup> These airlines are the regional short-haul carriers which provide services of a predominantly local nature between adjacent cities, and connecting service with the long-

<sup>3</sup> 49 USCA § 496, 52 Stat 1004.

<sup>4</sup> American Airlines et al. v. Civil Aeronautics Board (CADC) Nos. 12,688 et al.

<sup>5</sup> Atchison, T. & S. F. R. Co. v. Summerfield, (CADC) No. 12,663.

<sup>6</sup> Public Law 38, 84th Congress, 1st Session, 69 Stat 49, 49 USCA § 481(e)(3).

<sup>1</sup> Reorganization Plan No. 10 of 1953, 67 Stat 644.

<sup>2</sup> CAB Order E-9284, dated June 7, 1955.

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haul or trunk-line carriers. The local service carriers require substantial support in the form of subsidy mail pay, and they were initially licensed by the board on a temporary basis. Accordingly, they have been required in the past to go through renewal proceedings, and some of their certificates were not renewed because the subsidy costs outweighed the value of their services. Under the congressional amendment, the existing local service carriers, 14 in number and operating in 42 of the 48 states, will receive permanent certificates for the major portions of their routes.<sup>7</sup> While some intermediate points on the routes need not be permanently certificated, and although the board has statutory power to make some modifications and alterations of permanent certificates, or to suspend them,<sup>8</sup> the board will not as a practical matter have the same freedom to rearrange the route pattern that it formerly had under the system of issuing temporary certificates followed by renewal proceedings. Further, so long as the act remains in its present form, a local service carrier will have continuing eligibility for subsidy mail pay to support its operations.

There have been several important court decisions interpreting the Civil Aeronautics Act during the past year. A federal district court in California, in an injunction suit by the board to halt what it considered to be unauthorized interstate air transportation, held that the economic regulatory provisions of the act have no application to interstate transportation provided by a physically intrastate air carrier. *Civil Aeronautics Board v. Friedkin Aeronautics*, 4 Avi 17457. In the court's view, aircraft must cross state lines before interstate air transportation is involved, and connecting services afforded by intrastate carriers for interstate passengers do not fall within the scope of the Civil Aeronautics Act. The board's view has always

been to the contrary since the act defines interstate air transportation as the movement of traffic "in commerce between" the states, and the case is now on appeal to the ninth circuit.

IN June of this year the federal district court for the eastern district of New York issued a decision striking down an ordinance of the village of Cedarhurst prohibiting aircraft from flying over Cedarhurst at altitudes of less than a thousand feet. *Allegheny Airlines v. Village of Cedarhurst*, Civil Action No. 12680/1952. The effect of the ordinance was to materially hamper operations at the adjacent New York International Airport. The decision rests upon the view that the federal government has wholly pre-empted the field of traffic regulation—i.e., the height and manner in which aircraft shall be operated—and that the ordinance represented a forbidden attempt to enter this field. This decision is one with which the federal aviation agencies agree, and we urged that position in the case.

It should be stated, however, that the Cedarhurst decision does not relate to claims by private landowners of a taking of their property, but rather concerns an attempt through governmental action to specify the manner in which aircraft are to be operated. However, there are several suits now pending involving claims by private landowners in which the question of the effect of the federal acts and regulations are involved, and the theories and contentions advanced in some of these suits are both interesting and worthy of comment.

BOTH the Civil Aeronautics Act and the Federal Air Commerce Act contain declarations to the effect that there is a public right of freedom of transit through the navigable air space of the United States.<sup>9</sup> "Navigable air space" in turn is defined as "air space above the minimum altitudes of flight" prescribed by the board.<sup>10</sup> These altitudes for cross-country flight are generally 1,000 feet above congested areas, and 500 feet above sparsely settled areas. However, the board's minimum altitudes of flight also

<sup>7</sup> The carriers are:

Allegheny Airlines	Pioneer Air Lines
Bonanza Air Lines	(presently merged
Central Airlines	with Continental Air
Frontier Airlines	Lines)
Lake Central Airways	Southern Airways
Mohawk Airlines	Southwest Airways
North Central Airlines	Trans-Texas Airways
Ozark Air Lines	West Coast Airlines
Piedmont Airlines	

<sup>8</sup> See § 401(h) of the Civil Aeronautics Act (49 USCA § 481(h)).

<sup>9</sup> Civil Aeronautics Act, § 3, 49 USCA § 403; Air Commerce Act, § 10, 49 USCA § 180.

<sup>10</sup> 49 USCA § 401(24).

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permit the carriers to fly at the altitudes necessary for landing and taking off, and the board is of the view that such flights also are in statutory "navigable air space." The problem is, of course, the legal effect which is to be given to the fact that a flight is in navigable air space in relation to a landowner's claim. The contentions range in substance from the extreme that the federal government has provided a public highway through the air to and from airports over which aircraft are privileged to fly without restraint, and that the federal government is liable for any damages resulting from any taking of private property in connection with this public highway; to the other extreme that the federal enactments have no effect whatsoever on the rights of the landowners.

Thus far, the government's position has been what we think to be a reasonable intermediate one. In a suit before the supreme court of Pennsylvania involving the Pittsburgh Airport, the federal agencies have

contended as *amici* that the government has not provided a public highway through the air in the sense that the United States is liable for a taking of property resulting from the operation of nongovernmental aircraft.<sup>11</sup> Rather, the contention was that, under the commerce clause of the Constitution and the statutory freedom of transit provisions in navigable air space, civil aircraft may operate in conformity with federal regulations free of all claims of trespass and nuisance except where a legal "taking" of property occurs. But where a legal taking occurs, or where operations are not in conformity with federal requirements, the position was that the landowner has such remedies as may be available under state law against the offender. What will be the ultimate decisions on all of these questions is of course a matter of conjecture. But whatever the result, it will be important to the future of aviation.

<sup>11</sup> *Gardner v. County of Allegheny* (Pa Sup Ct 1955) 114 A2d 491.

## Commonwealth Edison's Proposed 180,000-kilowatt Nuclear Power Plant

By CLARENCE H. ROSS\*

IN the spring of 1903 the principal officers of General Electric Company and Commonwealth Edison Company gathered at Fisk generating station in Chicago to witness the starting of the first all steam turbine generating plant ever to be constructed. Though this plant was slightly less efficient than the reciprocating engine which it supplanted, the management of the two companies recognized the potentialities of this new efficient source and had the courage to construct a 5,000-kilowatt unit, which was a very large generator for those days. This plant operated with a steam pressure of 200 pounds and at a temperature of approximately 400 degrees. It used about five pounds of coal to produce one kilowatt-hour of electricity.

In 1929 the Commonwealth Edison Company installed a 208,000-kilowatt unit operating at 600 pounds and 730 degrees which for a number of years was the largest unit in existence.

\*Partner, Ross and O'Keefe, and counsel, Peoples Gas, Light & Coke Company.

The largest unit of the Commonwealth Edison Company under construction today is 250,000 kilowatts, to operate at a pressure of 2,000 pounds and 1,050 degrees. I understand that a unit is now being designed for another company which will develop 300,000 kilowatts. A smaller unit is being constructed to operate at 4,500 pounds and 1,100 degrees.

THE proposed nuclear plant is designed to develop 180,000 kilowatts. The turbine will take steam at both 600 pounds and 350 pounds and a maximum temperature of 486 degrees, which is only slightly higher than the first unit installed in 1903. The proposed nuclear plant is the largest yet scheduled and will represent 4 per cent of the capacity of the Commonwealth Edison Company at the time the plant goes into service. General Electric Company has agreed to build the plant for \$45,000,000. The Commonwealth Edison Company will own and operate the plant and will pay \$30,000,000



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toward the \$45,000,000 contract price. This amount, plus the \$500,000 cost of the site, plus overhead cost, is proposed to be included in Edison's utility plant account. The other \$15,000,000 will be paid as a research and development expense over a period of five years by the research group.

Members of the research group, in addition to Commonwealth Edison Company, are American Gas & Electric Service Corporation, Pacific Gas and Electric Company, Union Electric Company of Missouri, Bechtel Corporation, Central Illinois Light Company, Illinois Power Company, and Kansas City Power & Light Company. Over a period of five years the members of this group will pay \$15,000,000 into the research corporation which, in turn, will supply the \$15,000,000 balance of the contract price. For this money these other companies will have no ownership in the plant, but will gain technical information, experience, and training which can be obtained only from day-to-day participation in designing, building, and operating a full-scale nuclear plant. The three Illinois companies have already obtained the approval of the Illinois Commerce Commission to charge this cost as an expense as it is paid.

**A**PPPLICATION has also been made to the U. S. Commissioner of Internal Revenue for a ruling to the effect that such research contributions may be charged to expense for tax purposes in the year of payment.

Under the proposed plan of financing, no request will be made for government funds or for accelerated amortization of the capital cost. Commonwealth Edison Company will pay the Atomic Energy Commission's established charges for nuclear fuel.

On the basis of the depreciation of the plant cost of Commonwealth Edison Company of \$30,500,000 (plus overhead costs), this plan will produce electricity at present costs for nuclear fuel on a competitive basis with coal in the Chicago area. In the newer plants of the Edison Company about one pound of Illinois coal is required for each kilowatt-hour produced, which means that this plant, on the foregoing basis, can compete with coal as a fuel and of course is much more efficient than the 1903 plant which required five pounds of coal per kilowatt-hour.

The newest unit of the Edison Company of 250,000-kilowatt capacity will use 1,700,000 pounds of steam per hour, whereas the nuclear plant of 180,000 kilowatts requires 2,200,000 pounds of steam per hour. This, of course, is because the pressures and temperatures of the nuclear plant are less than half of that of the new coal fuel units.

**T**HE part of the plant which produces the steam is a boiler-like structure enclosing several hundred radioactive rods which are about ten feet in length. These rods are in direct contact with the water. They operate at a comparatively high temperature and generate steam at a temperature of 486 degrees and 600 pounds pressure and also permit water to be drawn off which is sprayed into a flash tank which produces steam at 350 pounds pressure and a temperature of 431 degrees. The 600-pound steam goes to the high-pressure end of the turbine and the low-pressure steam goes to a lower stage of the turbine. An interesting thing about the radioactive rods is that they can be handled like so many pieces of ordinary pipe before they are placed in the reactor and are in no way dangerous to handle. After they have been placed in the reactor and have been spent they are then dumped automatically into a storage basin filled with water. The rods still give off a small amount of heat but not enough to require any circulation of the water in the storage pit.

After the rods have been in the pit a couple of years they can then be removed and buried or processed. It is probable that the disposition of the used rods will be less difficult than the disposition of ashes from a comparable coal-fired plant. The radioactive rods in the reactor need be replaced with new rods only at intervals of several months depending on the load carried by the generator. The useful lives of the individual rods also depend on their position in the reactor.

**B**ECAUSE the radioactive rods always have a very slight degree of radiation, no special device is required to start the reactor. When the rods and water are placed in the reactor the operation starts itself and accelerates rapidly. The speed of the reaction is controlled by a large number of control rods which are attached to a piston-like arrangement which permits their insertion and with-



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drawal in the interstices between the radioactive rods. These control rods act as buffers and absorb the neutrons released by the radioactive rods and prevent their bouncing back into the radioactive rods and thus the acceleration of radiation and the resultant creation of heat can be accelerated or reduced by the extent to which the control rods are inserted between the radioactive rods. The production of steam can be virtually eliminated by the complete insertion of the control rods.

The turbine and generator are conventional in design except that they do not reflect the developments in efficiency of the last twenty-five years occasioned by the increase in temperature and pressure during this period. While the turbine room is shielded, the steam is only slightly radioactive because it does not readily absorb radioactivity and even to the extent it does, the radioactivity has only a half life of about seven seconds. It is anticipated that very little radioactivity will be transmitted to the turbine itself by steam, and it is not anticipated that any serious service problems will be created by such radioactivity as is absorbed.

**T**HE most interesting part of this construction is that the entire plant is expected to be enclosed in a sealed steel sphere 200 feet in diameter which encloses a control room from which the plant is operated. Extensive service buildings, which are located near the sphere, are also required. The total personnel required is expected to be about the same as that for a comparable coal-fired plant. This sphere is designed so that in the event all of the immediate available energy from the nuclear fuel were transferred very rapidly into the water in the system and the resulting steam broke loose in-

side the sphere, the sphere would successfully contain all of the steam, thus eliminating any hazard to the public at this point at least. The sphere would have to have a good scrubbing before it could be used again.

The ultimate site capability is 1,200,000 kilowatts, or almost seven times that of the present plant. It is not anticipated that additional equipment will be placed in the initial sphere. What is meant by capability is that the land area and quantity of condenser water available will permit total capacity of this amount.

As more experience is had with the operation of this nuclear plant it is anticipated that additional units can be operated at higher temperatures and pressure, in which event the cost of the installation per kilowatt of capacity will be reduced. Because of the fact that nuclear fuel per Btu is cheaper than coal fuel per Btu, one can easily imagine that the development of the art in the next twenty to thirty years may make coal plants obsolete, though this is not being predicted by the experts.

Some time in 1960, fifty-seven years after the starting of the Fisk station turbine, the principal officers of General Electric Company and Commonwealth Edison Company may again gather together to witness the starting of this first 100 per cent privately financed full-size nuclear plant.<sup>1</sup> I understand some of the officers or directors of the Commonwealth Edison Company refused to attend the ceremonies in 1903 for fear the turbine would blow up. Anybody worried about 1960?

<sup>1</sup> Consolidated Edison Company of New York, Inc., is proposing to completely finance and build a full-size nuclear plant in connection with which the steam is to be superheated by the use of conventional fuels.

## Legal Aspects of Atomic Power

By PAUL W. McQUILLEN\*

**T**HE topic chosen for this morning's session is a good example of the foresight and breadth of vision characteristic of the officers of this section. This is the first meet-

ing of our section since the Atomic Energy Act was amended to free for civilian applications, under safeguards, the awesome forces of our nation's most powerful weapons.

The topic as stated with commendable brevity is almost as appalling as the force

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itself. All the "Legal Aspects of Atomic Power" I venture to say are not yet even known. However, it seems most fitting that the Public Utility Law Section of the association should be the first of the special sections to tackle the subject. The first major civilian atomic reactor plants will be built or owned or operated by clients of members of this section and one of their principal objectives is the generation of electricity, with the legal aspects of which this section always has to struggle.

Many of the areas in which new legal questions will arise from civilian use of atomic energy and of its products, can only be pointed out in the short course of this one morning. Most of our time, therefore, will be given to legal aspects of getting started in the new industry and in those parts of it most closely related to the public utility business.

**A**NYONE starting in a new industry must know its science and technology, must be legally free or authorized to engage in it, and will hope to make a profit. In all three respects private atomic industry is unique in being largely dependent upon the terms of partial surrender of an absolute government monopoly.

In the first respect, we note that information about the science and technology was, and still is to an appreciable extent, protected in varying degrees of secrecy. That is one of the conditions under which we and our clients must work. There are grave questions of policy to be decided in maintaining a delicate and wise balance between the protection of security and the advantages of having more minds at work, but this session will not try to cover that large subject.

On the third point, we all know that the hope of ultimate profit is the incentive for private participation in this as in all private industry. The pioneering stages may not be immediately profitable but the goal is a fair return upon the investment. That is implicit in our talks today but it also has not been made one of the express subjects of this session. In this connection I will take time only to point out that the economy of atomic power will be controlled largely by prices fixed by the Atomic Energy Commission.

All the essential fuel for atomic power, called special nuclear material, is owned by

the government. Private operators must pay a charge for its use, a charge for any part they consume, and a charge for reprocessing the fuel after it has been used, all at rates fixed or to be fixed by the commission. The government will pay for any special nuclear material produced in a private plant, less a processing charge, also at rates fixed by the commission. The prices for other fission products, and for heat energy in the form of steam or otherwise, may be left to private bargaining.

**W**HEN greater freedom appears to be safe from the standpoint of national security, we may hope that the act will be amended to permit licensees to trade in special nuclear material, among themselves and with the commission, and thus establish true market values and offer a more normal incentive for private operation. In the meantime all plans must be based on prescribed costs and the commission may establish guaranteed fair prices for special nuclear material delivered to it, for not more than seven years at a time.

The second aspect I mentioned is the primary subject of today's session—legal requirements confronting us at the threshold of the new industry. In choosing to talk chiefly about the first things to be done we do not fail to realize that we must also be concerned with the application of more general laws to atomic phenomena. I will comment briefly on some of them before calling on the speakers.

The normal first question, about constitutional powers in the field, does not seem troublesome. The paramount authority of the federal government appears to be admitted. When amendment of the Atomic Energy Act of 1946 was being considered, the Joint Congressional Committee on Atomic Energy invited this association to submit legislative recommendations and made a special request for consideration of the constitutionality of congressional health and safety regulation in peacetime atomic energy activities, plus consideration of the policy involved in such regulation. At the annual meeting of this association last year, its Special Committee on Atomic Energy, established in response to that congressional invitation, reported among other things its conclusion that, on the basis of decisions of the United States Supreme

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Court, comprehensive health and safety regulations can be imposed by the federal government without encountering constitutional obstacles. As a matter of policy the report recommended that after a reasonable transition period the responsibility be taken over by proper state agencies.

THE source of regulation of health and safety may be the least of a lawyer's worries about those matters. Concurrent state and federal regulations may involve conflicts of laws but the new nature of the hazards would hardly make the conflicts novel legal questions. The more difficult conflicts would stem from restless moving from job to job and from state to state, in this case leaving behind a trail of exposures to radiation, and of potential defendants, or of exposures in moving vehicles, crossing state lines by land, water, or air. The illness alleged to have resulted may become manifest long afterwards in still another jurisdiction. What law would govern? The practical legal aspect of this is the emphasis it gives to the importance of records. The procedures for establishing and maintaining plant safeguards and of inspecting them, and of controlling and checking all activities of personnel, whether of employees or others, and of testing and recording each individual exposure to radiation, should be carefully supervised by lawyers as well as scientific technicians, so that admissible evidence will be available whenever required, as far as humanly possible and permissible under secrecy regulations at the time in force.

This general subject of liability for injuries to persons and damage to property is not of peculiar interest to utility lawyers and has not been selected for separate discussion, but it is of particular interest to them because of the large size of atomic reactors proposed for public utilities and because of their pioneering position. Consequently it should be noted that the subject is being studied by a special group of insurance executives who have made a preliminary report to the Atomic Energy Commission within the last few weeks. Their interim conclusions indicate that physical damage to atomic reactor plants themselves and their machinery, can probably be handled in the private insurance market in the same way as coverage on extra-hazardous machinery in other industries, but

that radioactive contamination presents new hazards requiring further investigation. Similarly it is to be expected that workmen's compensation for the employees of reactor plants can be handled by existing facilities, the major catastrophic problem in that connection being with respect to employees of other plants in which the air or water supply might become contaminated by fission products.

THE most serious problem is in the field of third-party liability insurance. In the unlikely event of a catastrophic accident the damage claims might be overwhelming. Such claims might be made against either the operator of the atomic energy plant or the manufacturer of a component part of the installation, and either directly by the person suffering injury or loss or as subrogation actions on the part of insurers called upon to pay the loss in the first instance. Notwithstanding these complications the further belief was expressed that the insurance industry could work out an aggregate limit of liability for all parties at interest substantially equivalent to those normally required by other major industrial enterprises.

The insurance committee's report noted that it was not the function of the study group to determine whether or not legislation should be proposed under which the government might assume liabilities in excess of those normally covered by insurance in other major industrial activities, that being a matter of public policy for the Atomic Energy Commission and the Congress of the United States. We may note, however, that the group advised that it was prepared to suggest practical methods of procedure if desired. Another possibility is some limitation of liability, perhaps in combination with an adaptation of the idea of war risk insurance.

Aside from the remote risk of the escape of a large lethal cloud of fission products, there is the continuous need for safeguards against personal injuries from exposure to radioactivity. The safety record is remarkably good. The regulations promulgated are well-founded on the excellent experience with governmental operations and should be equally effective in private industry. The subject is, however, one which we must always bear in mind, not because it is peculiar to utilities but because of the peculiar nature

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of the infliction unknown during the growth of our existent laws.

**E**XCEPT in the case of a serious accident, the presence of dangerous rays will be detected only by sensitive instruments. On this account, for the protection of the owner and operator of an atomic power plant and of all persons who may be exposed, the highest standards of precaution should always be observed and records should be scrupulously made and preserved in a way which will insure that they will be available whenever needed and be admissible in court if so required. In the event of any evidence of exposure beyond a recognized limit of safety, medical attention should be immediately provided. This may seem to be more a matter of plant operation than of law, but the adequacy of safety precautions should be the subject of close and continuous legal scrutiny.

As a rule a long time would elapse before any symptoms of injury appear and then it may be hard to prove what caused them. This will pose difficult problems under various forms of statutes of limitation. Most of such statutes were meant to outlaw suits by persons who consciously slept on their rights. Workmen's compensation acts call for notices and claims within comparatively short periods of time. They also list, with much particularity, the injuries for which compensation will be awarded. The first date of actual knowledge of injury might fairly be taken as the start of the time for giving notice or making a claim or instituting a suit. Perhaps also the date of first knowledge of exposure to radioactivity beyond prescribed safety limits, or the date from which one is chargeable with knowledge of an available record, should start the running of any time limit. Until statutes are amended to deal expressly with this new type of injury, lawyers will have to plead for construction of old language which cannot really be made to fit the case. This is one of the fields of law in which legislation will be necessary to adapt old legal concepts to the strange new conditions created by use of nuclear power. Only a small start has been made in that direction.

Two other important branches of general law affecting a private atomic industry, but falling more within the province of other sections of the association, are taxation and

patent law. Suffice it to say here that the large expenditures required for intangible results, and the uncertainties of useful lives of early atomic plants and their component parts, make income tax accounting for these elements an important consideration in any plan; and that the restrictions on normal patent rights under the Atomic Energy Act of 1954 are the subject of intense and continuing controversy. That also seems bound to be the subject of further legislative action.

One last general comment: If a corporation were to be formed to own and operate an atomic reactor to be connected with the generation of electric power, and were to be controlled by one or more other companies, the parents might be subject to the Public Utility Holding Company Act. This is so because the Securities and Exchange Commission might regard such a company as an electric utility if the heat it produced were used, in the form of steam or otherwise, to generate electricity, even though the steam were bought and used by an operating electric utility. Companies which are not public utilities could not subject themselves to that regulation, designed for utilities, and still conduct their regular business. Utilities not already subject to the Holding Company Act might not be willing to subject themselves to that jurisdiction.

**T**HERE are pending in Congress some bills to amend the Public Utility Holding Company Act, to permit co-operative financing and ownership of an atomic reactor company, under carefully specified limitations which would exclude it from the normal category of operating electric companies. In that way it would be possible for several groups of business concerns to share the very great expense of development and construction of an atomic power reactor and thus enable smaller business to participate in what could otherwise be done only by the very large corporations. Separate reactor companies might also attract limited investments from other corporations which would not be willing to assume the risks of owning and operating the reactors themselves.

We are fortunate in having with us today men who are in the forefront of finding and solving the legal problems with which members of our section will have to deal in this field.



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### Licensing Atomic Power Projects

By HAROLD L. PRICE\*

UNTIL very recently, the organized bar has had only a limited direct professional interest in atomic energy matters. The almost complete government monopoly which existed under the Atomic Energy Act of 1946 and the blanket of secrecy which covered the field combined to prevent the development of such an interest and, at the same time, to deny the nation's atomic energy program the full measure of contribution which lawyers customarily make to public affairs. Only a few years ago, the then chairman of the Atomic Energy Commission, himself a lawyer, speaking of the impact of the atom on law, made this observation:

... the events which have followed the first splitting of the uranium atom up to now have hardly left a dent on the substantive law of this country, on the procedural law, or for that matter on the work habits, the interests, the business, or the specialties of the practicing lawyer.<sup>1</sup>

The Atomic Energy Act of 1954 has changed this situation, and the direct interest of the legal profession in the many aspects of atomic energy is now clearly evident. Under the new act, while strict government controls are continued, the commission is directed to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes.

The framework for private participation in the civilian application of atomic energy is found in those provisions of the new act which permit the private ownership of reactor facilities and the private use of fissionable material, the supply of materials and services to private undertakings, and a greater latitude in handling classified information. In view of the technical progress which has been made in the past ten years, these changes in the law have inspired a great interest on the part of industry and the attorneys who represent industry.

\*Director, division of civilian application, U. S. Atomic Energy Commission, Washington, D. C.

<sup>1</sup> Gordon Dean, address delivered at the University of Pittsburgh Law School, February, 1951, reprinted in 12 *University of Pittsburgh Law Review*, 514 (1951).

The transition is one from a statutory government monopoly to a regulated industry. There are many "lawyer's problems" involved in this transition, and the commission welcomes the increasing interest of the legal profession and looks to the members of the profession for advice and criticism as the change takes place and as experience teaches new lessons in administration. The public utility bar can play a particularly significant rôle, for the matter of producing power from nuclear fuels, while not the only important civilian use to which atomic energy will be devoted, is of immediate and major importance because it gives promise of becoming competitively feasible in a comparatively short time.

#### *General Observations on the Continuing Rôle of the Government*

THE new law does not contemplate that, apart from regulating the industry and administering the atomic weapons program, the commission is to abandon the atomic energy business. In reporting the bill which later became the Atomic Energy Act of 1954, the Joint Committee on Atomic Energy stated:

We do not believe that the efforts of free enterprise, using its own resources and moneys, are by themselves adequate to achieve the speediest possible attack on the goal of peacetime power. Neither do we believe that maximum progress toward this objective will be afforded by an effort relying exclusively on governmental research and development, using the public's moneys. We believe, rather, that teamwork between government and industry . . . is the key to optimum progress, efficiency, and economy in this area of atomic endeavor. In other words, our legislative proposals aim at encouraging flourishing research and development programs under both government and private auspices.<sup>2</sup>

Thus, the commission on its own account continues to engage in large-scale experi-

<sup>2</sup> House Report No. 2181 and Senate Report No. 1699, 83rd Congress, 2nd Session (1954), p. 9.



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mental work to discover and perfect useful applications of atomic energy. In so doing, however, its sole purpose is to advance the art. It has no desire to compete with private industry in the matter of furnishing equipment, facilities, or materials, or of rendering technical assistance and services, and it intends to stay out of such business whenever there is a commercial market available. Of course, the commission has no desire to sell or distribute power except as it may have useful power available incident to the operation of its facilities.

**H**OWEVER, the atomic energy production line is long, complicated, and expensive, and there are many industrial processes along the route from ore to energy—the same route traveled in converting ore into bombs. Not all of these processes have a present commercial interest, and the commission must stay in business if the production line is to keep active.

It must, for example, continue its interest in raw materials in order to meet its commitments to the mining industry and to assure sufficient production of nuclear fuel for both military and civilian uses. It must continue its activity in the processing of “feed materials”—the chemical operation whereby natural uranium is purified and made ready for the production of fissionable material. Private processing plants do not now exist. An extremely important function is the separation of uranium-235, the fissionable material, from the uranium-238 contained in natural uranium. The high cost of constructing and operating these separations facilities indicates that there will be little commercial interest in these necessary plants in the immediate future.

A further step required before the special nuclear material is ready for a reactor concerns the processing and fabricating of the material into fuel elements. The operations required here do have a commercial interest; and although most of the plants today are government-owned, private concerns have indicated that they will enter the field.

And, finally, there is the important business of processing of spent fuel elements after removal from a power reactor. This involves separation of the highly radioactive fission products from the unburned fissionable material so that the latter may be reused

in weapons or in new fuel elements for reactors.

The commission plans to continue a vigorous development program aimed at improvement of these processes. And until such time as adequate production can be sustained by privately owned plants in each of these steps, there will be a need for the commission to continue its manufacturing activity in the field, quite apart from its function as a regulatory agency.

### *The Commission as a Regulatory Agency*

**B**ASED on a predominate concern with public health and safety and national security, the 1954 act provides the broad outlines of a plan for the control of materials and facilities essential to the industry through a licensing procedure, implemented by “rule, regulation, or order” and inspection of licensee’s activities. The purposes of the regulatory program are to specify the conditions of activity in the field and to police the performance for compliance with those conditions. There is no attempt to limit entrance into the atomic energy field.

*Facilities Control.* Facilities, including power reactors, are subject to licensing control under § 103 or § 104 of the act.

A § 104 license is issued for facilities to be used in medical therapy, in research, or in the conduct of research and development activities leading to the demonstration of the practical value of the facility for industrial or commercial purposes. All of the present power reactor types fall in this last category. In issuing licenses for power reactors under this section, the commission must give priority to activities which will, in the opinion of the commission, lead to major advances in the application of atomic energy for industrial or commercial purposes.

**A** § 103, or “commercial,” license covers a facility that has been sufficiently developed to be of practical value for commercial purposes. It cannot be issued until the commission has made a specific finding of practical value with respect to the type of facility involved. No such finding has yet been made by the commission with respect to any reactor type, and all of the applications received to date have been for § 104 licenses.

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When we reach the stage of commercial licenses, certain statutory requirements will become important. Before such a license may be issued the commission must notify the Attorney General, who is required to advise the commission whether the proposed license would tend to create or maintain a situation inconsistent with the antitrust laws; and his opinion must be published in the *Federal Register*. Further, the commission may not issue a commercial license until it has given notice to such regulatory agencies as may have jurisdiction over the applicant's rates and services, and to municipalities, private utilities, public bodies, and co-operatives within transmission distance authorized to engage in the distribution of electric energy. In the event of conflicting applications for a license under § 103 for the generation of commercial power, the commission is required to give preferred consideration to applicants located in high-cost power areas and to applications submitted by public or co-operative bodies.

WITH respect to both § 103 and § 104 licenses, an applicant must first obtain a "construction permit" under which the reactor is built. The license will not issue until construction is completed. This "two-step" procedure is in recognition of the fact that safe operation is related to design and method of construction. It gives the commission an opportunity to determine by inspection before potentially dangerous operations are begun whether safety standards have been met. And it gives assurance to the applicant that upon completion of the facility in accordance with the terms of the construction permit, and in the absence of any good cause being shown to the commission why the granting of a license would not be in accordance with the provisions of the act, he will obtain a facilities license.

All applicants must demonstrate that they are equipped to observe such safety standards to protect health and to minimize danger to life or property as the commission may by rule, regulation, or order establish. Prospective licensees must exhibit appropriate technical and financial qualifications. A license, when issued, will be subject to such conditions as the commission may lawfully establish. Finally, the operators of the facilities—those persons who manipulate the

controls—must be licensed under prescribed conditions after individual qualifications have been determined.

**MATERIALS CONTROL.** I have mentioned fissionable material several times. Under the new act, this material is defined as special nuclear material. This material and source material, and by-product material (*i.e.*, radioactive isotopes produced in a reactor) are all subject to government control. By statute, title to all special nuclear material, wherever produced in the United States, vests in the government. However, the commission may issue licenses for the possession of this material and may distribute it to qualified applicants for purposes of research and development, for medical therapy, and for use in the operation of licensed facilities.

The private ownership of source material is permitted under the law, but a license is required before any person may transfer or use important quantities of source material after removal from its place of deposit in nature. This licensing control covers all phases of commercial processing operations, including the milling of the ore, the refining of the ore to metal, and the fabrication of the metal into reactor fuel elements.

With respect to radioisotopes, the commission is authorized to issue licenses to applicants seeking to use such by-product materials for research and development purposes, for medical therapy, industrial uses, agricultural uses, or such other useful applications as may be developed.

As to each of the three groups of materials, the act authorizes the commission to "establish by rule, regulation, or order, such standards and instructions to govern the possession and use of" the material "as the commission may deem necessary or desirable to promote the common defense and security or to protect health or to minimize danger to life or property."

Under this broad statutory power over materials and facilities, the commission is in the process of issuing or revising a series of regulations covering the following:

1. The distribution and use of special nuclear material;
2. The construction and operation of facilities for the production or utilization of special nuclear material;

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3. The licensing of individuals to operate, that is, to handle the controls of reactors;

4. Radiological health and safety standards;

5. Security regulations, establishing requirements for the safeguarding of classified information;

6. Control of source materials;

7. Control of by-product materials;

8. Rules of practice, to implement the requirements of the act with respect to the administrative procedures to be followed in the administration of the licensing program. This important regulation, recently published under notice of proposed rule making, is designed, among other things, to present an adequate opportunity to contest at a formal hearing the issuance, amendment, transfer, suspension, and revocation of licenses.

**I** SHALL not attempt to review these regulations here in detail. Considerable care and effort have gone into their preparation. Extensive staff studies were conducted to provide them with a sound basis. Working drafts were prepared and discussed in conference with members of the industry and other groups that may be substantially affected, and the impact of licensing control upon industry was explored. We have had discussions with representatives of the state governments. The states, too, will be faced with many problems resulting from the private exploitation of the atom, and it will be our purpose to continue a close working relationship with the states in areas of mutual interest. All these discussions proved to be very informative and helpful. Careful consideration has been given to all comments received from the public as a result of the published notices of proposed rule making. We believe we are developing the outlines of a licensing system which will be sound, fair, and workable.

A study of the detailed regulations will indicate a primary concern with protecting the health and safety of the public and atomic energy workers. The potential hazards in atomic energy are substantial, and grave consequences might result from a major reactor accident.

**T**HE process of nuclear fission which takes place within a reactor creates

large amounts of radioactivity, highly dangerous to humans and damaging to many types of materials. It creates wastes, known as fission products, which are highly radioactive and create a troublesome disposal problem. The hazards involved in the total process contribute largely to the substance of the controls which the commission must impose under the congressional determination that the processing and utilization of atomic energy materials must be regulated in the national interest, among other things, "to protect the health and safety of the public." Indeed, the need for such protection is one of the major justifications for continuing government control, and the hazard potential creates many of the legal and administrative problems which must be met.

The remarkable safety record compiled by the commission in over twelve years of operating reactors and dealing with radioactive substances has resulted from constant concern with the problems of health and safety and reactor safeguards.

Industry must also be prepared to meet the hazards problems. Thus, the applicant for a reactor license must satisfy the commission that the location of his proposed reactor, its design and containment, his operating procedures and processes, his fail-safe protective devices, and other technical specifications give reasonable assurance that the health and safety of the public will not be endangered. It must also be recognized that safety involves more than gadgetry and written standards and procedures. There is the human factor. As one of our eminent scientists has said:

With all the inherent safeguards that can be put into a reactor, there is still no foolproof system. Any system can be defeated by a great enough fool.

The real danger occurs when a false sense of security causes a relaxation of caution.<sup>3</sup>

**T**HERE is one further point to be considered in connection with the hazard problem, and one which is of particular interest to lawyers; namely, the problem of insurance. The commission is concerned about

<sup>3</sup> Address of Dr. Edward Teller, University of California, to Geneva Conference, as reported in *The New York Times*, August 11, 1955, p. 7.

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this problem because, until it is solved, it may act as a deterrent to the fullest possible industrial participation in the atomic energy program. This possibility has caused the commission to follow closely atomic energy insurance developments.

The problem is complicated by the magnitude of possible loss, the limits of the size of risk which an individual insurance underwriter might assume, the lack of actuarial data needed to appraise the problems involved in accordance with conventional formulas, and the absence of any definite conclusions by industry itself as to the amount of insurance it needs.

Some months ago an insurance study group, composed of executives of companies in the insurance industry, was appointed to review the insurance problems created by expanded industrial participation in atomic energy and to develop information and criteria with respect to the insurability of atomic energy installations and undertakings. The group's interim conclusions contained in a preliminary report recently filed are informative and helpful and seem to present a more optimistic picture than was originally expected.

**T**HE group concluded that the catastrophe potential is more serious than anything now known in the insurance industry, but that the possibility of a serious catastrophe seems very remote.

In general, the group found that the insurance capacity appears to be adequate to cover most industrial risks.

The most serious problem as to the amount of insurance available lies in the field of "public liability insurance" and arises from the very high aggregate dollar amount of claims which might arise in the event of a possible, though not necessarily probable, catastrophic accident.

Notwithstanding the complications involved, the report of the study group concludes with the belief "that the insurance industry can work out an aggregate limit of liability for all parties at interest substantially equivalent to those normally required by other major industrial enterprises."

Essentially, the questions which remain, after the general conclusions of the group are translated into *amounts* of coverage, must be answered by the atomic energy in-

dustry: How much coverage does the industry want? Is that amount greater than is available in the commercial market?

**I**F it is concluded that excess coverage is required and can be justified on the basis of need, and if it is determined that the lack of such coverage will be a deterrent to participation and progress in the field, some measure of government insurance may be indicated. Several suggestions have been made concerning the form which this should take: the development of a scheme similar to that which prevailed with respect to war damage, government reinsurance, direct government excess coverage insurance, and general indemnity legislation which would obligate the government to pay for losses exceeding those commercially insured. No decision has been made in this regard and no such determination can be made until the limits of desired coverage are defined and justified. This is a matter to be worked out by the joint efforts of the atomic energy industry, the insurance industry, and the AEC.

I have discussed at some length one of the two primary reasons for government control of the industry—the hazard potential. The other reason is, of course, the overriding necessity of protecting the national security. This means rules to guard against unlawful diversion of special nuclear material and rules to control the dissemination of restricted data.

We believe that adequate protection of special nuclear material can be achieved by conventional methods of accounting for valuable materials; and the proposed regulations place considerable reliance on the fact that the licensee is financially accountable to the commission for the value of the material in his possession.

**A**S for information control, the commission has adopted a program for the dissemination of classified peacetime information under appropriate security safeguards.

The commission is also pursuing a vigorous declassification program. Much information is being declassified and published and much that cannot be declassified is being downgraded to a less sensitive classification so that it can be more widely disseminated. This is a continuing job and necessarily a



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slow one because it involves the review of countless documents to make sure they do not contain vital weapons data.

As I have already mentioned, the proposed licensing regulations are being revised to take account of the comments received from the public as a result of the published notices of proposed rule making. For one thing, we are trying to fill in some of the gaps. But it will take some experience under the new system to iron out all the kinks. Certainly it will be our purpose to make the burden of regulation upon industry as easy as possible, consistent with the requirements of law. We look particularly to the bar for help in this effort.

**I**N conclusion, I would like to emphasize a few hard facts which industry and the government will have to deal with in the period immediately ahead.

I believe this is the first instance of government regulation of industry in a field where much of the necessary industrial information is clothed in official secrecy. Concededly, trying to get a new industry going under security wraps is doing it the hard way.

Also this is probably the first attempt at comprehensive regulation of an industry which has hardly gotten started. Normally the regulation of a business follows, rather than precedes, the establishment of the business. And the regulatory structure is then erected over a period of time on the basis of experience in the business.

The dependence of the new industry upon the government in the immediate future for many services and materials, as well as for information, is another hard fact which will create many special problems. I am sure that none of the regulated industries (or non-regulated industries, for that matter) is in this position.

**A**ND finally there are technological uncertainties at several important stages in the production and processing chain.

The coming transition from government monopoly to regulated industry will produce many problems for industry and for the government. However, with a spirit of helpful co-operation between industry and the government certainly a suitable climate can be established in which all branches of the infant industry can grow and can prosper.

## Licensing Atomic Power Projects, from the Point of View of a Utility Engineering Group

By ARVIN E. UPTON\*

**A**T one time or another I suppose everyone here today has paused in his daily round to observe a building under construction. I certainly have, although I have never ventured—even after frequent association with engineers—to give advice on the methods of construction.

Why do we pause? Fundamentally, it is because we are all interested, I think, in the process of growth. We have this interest equally if the growth is abstract—as in the development of personalities and the progress of institutions—or concrete—as in the construction of a building or the painting of a portrait.

In watching the evolution of institutions—and of the separate principles and patterns

which go to make up institutions—we are not usually so fortunate as to see them grow before our eyes. Unlike the work of the artist and the builder, their growth is not readily identifiable in either space or time. Often their development is so gradual that we do not realize it has taken place until it has been completed. This seems to be especially true of legal patterns and principles.

**I**BELIEVE we have seen a striking exception to this general truth during the past year, in the progress that is being made toward shaping an entirely new regulatory system in the field of atomic energy. The first stride was the enactment of the Atomic Energy Act of 1954<sup>1</sup> which, in contrast with the 1946

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<sup>1</sup>Public Law 703, 83rd Congress, 2nd Session, 68 Stat 919, 42 USC 2011-2281.



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statute,<sup>2</sup> permitted substantial private activity in atomic energy. The pace has continued with the publication of some of the proposed regulations under that act by the Atomic Energy Commission.

The advances that are being made in solving the technological problems involved parallel and even surpass the progress toward constructing a legal framework for atomic energy. Of course, the scientists and engineers have not solved all of these problems and Congress recognized the obstacles when it debated the 1954 statute.

In this and other respects the statute was a compromise, and like all compromises it has been criticized.

Some have said that the act attempts the almost impossible task of integrating requirements of national security with those of free private use of information, techniques, and initiative. Others have observed that the statute spells out standards in such detail that it handicaps the kind of regulatory experimentation that is desirable in a new area.

Despite these possible shortcomings the Atomic Energy Act of 1954 is in my opinion the best resolution of strongly conflicting attitudes that could be achieved at the time.

**T**HE provisions of the act are far ranging and intricate. Today I have been asked to discuss one of its many aspects—the licensing of atomic power projects—and to discuss that aspect from the viewpoint of a utility engineering group.

First of all, I should say what I assume the group is going to do. It is always very pleasant for a lawyer to be able to choose his own facts. There are several choices to make. I could assume that the group is going to form a corporation to build and operate an atomic reactor and sell the heat produced to a local electric generating and distributing company. I could assume that the corporation is also going to build electric-generating facilities. Or I could assume that all of the members of the group contribute money or services to a single utility company which will own the reactor and operate it as an integrated part of its system.

All of these choices to a greater or lesser degree involve problems not directly related to atomic energy licensing. For example, antitrust implications will have to be con-

sidered. A proper tax treatment must be worked out. Questions under the Public Utility Holding Company Act may arise. I should like to focus this talk, however, directly on the Atomic Energy Act. And so I shall not give any special coloration to the phrase "utility engineering group." For the purpose of what I have to say I shall treat the group as if it were an ordinary electric utility company which decides to build a reactor and use it in its system.

**O**BVIOUSLY, the big question for our reactor group is what kind of licensing is required.

The key to this question is that the reactor to be built—which we might call an atomic furnace—will most probably utilize special nuclear material. Now special nuclear material is a term of art in the act and has replaced the former phrase "fissionable material."

I can define it for our purposes today as meaning source material, for example natural uranium, the content of which has been so refined in the proportion of a particular isotope as to be capable of a sustained nuclear chain reaction. The technicians usually speak of this process as "enrichment." The degree of enrichment required may vary for different types of reactors. In any event, I will oversimplify a little and say that the basic objective of licensing under the Atomic Energy Act is to control how, where, and by whom special nuclear material may be utilized or produced.

The separate licenses required are: first, a facility license to build and operate the reactor which is going to utilize and produce the material; second, a license to acquire, possess, and use source material; third, a license to possess and use special nuclear material; and fourth, a license for the individual who actually manipulates the controls of the reactor.

In the discretion of the commission these separate licenses can all be granted as a single license.

**I**T is not enough, however, for our reactor group to know the activities that must be licensed. It must also know what kind of a facility license to seek.

In considering this problem, Congress acknowledged that no type of reactor can

<sup>2</sup> 60 Stat 755.

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produce power on an economic basis at present. Therefore, the act encourages continued research and development and the construction of reactors which lead to a demonstration of their practical value for industrial or commercial purposes. In such cases the commission issues a license under § 104b of the act, which we might call a demonstration license. Once practical value has been demonstrated the commission makes a finding to that effect pursuant to § 102. Thereafter anyone desiring to construct that type of reactor must obtain a commercial license under § 103 of the act.

Up to the present, the commission has not determined any type of reactor to be of practical value. It is thus evident that our reactor group should seek a demonstration license under § 104. Indeed, it is probable that during the next few years all applications for facility licenses will be made under § 104.

LET us assume that our reactor group builds a pilot reactor, the successful operation of which leads to a finding that the reactor type has practical value. What then will happen to the demonstration license covering the pilot reactor? Must it be converted to a commercial license? Or may it be continued as a demonstration license? The answer is important because regulatory requirements are stricter for commercial licensees. Furthermore, there is a limitation of forty years on the term of a commercial license whereas there is no limitation on the term of a demonstration license.

In my opinion, the § 104b license should remain in force for its prescribed term. Any other conclusion suggests that Congress was willing that the pioneer licensee be put in hazard as a result of the risks taken by it to forward reactor development.

The difference between a commercial license and a demonstration license is significant also from the standpoint of the criteria for licensing. In the case of demonstration licenses Congress has directed the commission to impose the minimum amount of regulations as will comply with security, health, and safety considerations and will also be compatible with the terms of a commercial license for the same type of facility. Moreover, the commission can provide certain kinds of direct support to a demonstration licensee which it cannot furnish to a com-

mercial licensee. For example, it may give research assistance under § 31. Under §§ 53c and 63c it may, under certain circumstances, reduce or waive its charges for the use of special nuclear material and source material.

In announcing its demonstration power program in January of this year, the commission has already indicated that it will exercise to a limited degree the authority granted in these three sections.

STILL another distinction between a commercial license and a demonstration license is the preference provision applicable only to commercial licensees, contained in § 182c. This section states that the commission—in issuing a commercial license for a facility for the generation of commercial power—shall give preferred consideration to applications for facilities to be located in high-cost areas if there are conflicting applications “for a limited opportunity for such license.”

Over this geographical priority the statute imposes a further priority; namely, preferred consideration for any such conflicting application submitted by a public body or co-operative.

What does this section mean? Grammatically, it is quite confusing. The key to it lies in the phrase “limited opportunity.” As I interpret this phrase it means “limited availability of special nuclear material.” If this interpretation is correct, the section may present no serious practical problems if the future production of special nuclear material from both governmental and private facilities is as large as expected. In other words, the factual basis for a “limited opportunity” may simply never exist.

This construction is supported by the remarks of Senator Humphrey during the Senate debates when he stated that the phrase “limited opportunity” was intended to apply to a “limited situation” where there was a “very limited availability of atomic energy for the purpose of electrical generation . . .”<sup>8</sup>

I HAVE mentioned some of the differing incidents of commercial licenses and demonstration licenses, but we must not forget that the law prescribes basic standards to be met

<sup>8</sup> 100 *Congressional Record* 10956.

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in either case. For example, an applicant must establish his financial and technical qualifications and his reliability from the health and safety standpoints to build and operate a reactor. Undoubtedly, health and safety considerations will predominate.

An important aspect of licensing is that applicants for facility licenses will initially be granted construction permits if the application is "otherwise acceptable" to the commission. Section 185 of the act provides that in the absence of good cause shown the permit will ripen into a license after construction of the facility in an approved manner. The proposed commission regulations list fire, flood, and similar matters as examples of good cause. Suggestion has been made that developmental difficulties be added to this list. In any event, our reactor group should perfect a comprehensive design before accepting a permit. Otherwise, the permit may be so general that there will be no assurance of a subsequent license.

Up to now I have been talking about licensing. Unfortunately, if our reactor group devotes its attention entirely to licensing it will be in the position of a man who obtains a hunting license but forgets to buy any ammunition. It is imperative that our group make arrangements with the commission for the distribution of material to run the reactor and for the performance of processing and other services which at present only the commission can furnish. These arrangements are so important that our group could safely conclude that its most serious problem is not a matter of licensing at all. That problem is the availability of special nuclear material to keep the reactor in operation.

**A**t the present stage of development, I believe we can reasonably assume that the reactor which our group wishes to build will not run without special nuclear material. The enrichment technique necessary to form special nuclear material from source material can at present be accomplished only in commission-owned facilities. Of course, some special nuclear material will be produced by a reactor itself when placed in operation. The significant legal factor is that the title to special nuclear material—whether produced in private or public facilities—vests in the United States so long as the material con-

tinues to exist. How is our reactor group to assure itself of a stable supply of this material over a long period to warrant its large capital investment in a reactor?

The best that can be said of the statute on this issue is that its provisions are conducive to faith, hope, and uncertainty.

**L**ET us begin our analysis of the problem with § 41 of the act, which provides that the President must determine at least yearly the amount of special nuclear material to be produced in commission facilities and the quantities to be made available for domestic and international purposes. Although not stated, the controlling element in this determination is the amount required for military needs. Presumably, the President will also take into account the estimated production from private facilities. This will be negligible for the next few years. The real question so far as private operators are concerned is the comprehensiveness of the allocation made. Let us suppose there are five facility license applications outstanding at the time the President's determination is requested. Should he then allocate enough material to operate the five reactors throughout the prospective license periods? Or is he limited to allocating the material that will be needed for the ensuing year?

As a practical matter, the answer to this question might depend upon whether the total amount needed for the reactors is a great deal of material or only a little material. This in turn depends upon how much material is needed for military purposes and how much is being produced currently by the commission. Answers to these questions are highly classified. Various officials have hinted, however, that there will probably be enough material for all prospective licensees.

**I**F the President makes his determination on a "one-year need" basis, our reactor group obviously cannot be certain about obtaining material after that year.

Even if the President's allocation is related to facility license periods, we must remember that this allocation is not a commitment. Moreover, there is question whether the commission itself has power to make any commitment of a contractual nature for the supply of special nuclear material. It is true that § 53a of the act, authorizing the commis-

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sion to license the possession and use of special nuclear material, also empowers it to make such material "available" for the period of the license. In apparent reliance upon this provision the commission's draft regulations state that a facility license will contain appropriate provisions to assure availability. The difficulty is that § 161m of the act—which permits the commission to make long-term agreements to sell source material—expressly denies similar authority for the distribution of special nuclear material. Thus, one could argue that the commission's assurances would be meaningless and that the licensee would not have any legal remedy if the commission failed to honor its assurances.

The law should be amended, I believe, because of this uncertainty so that the commission can make an enforceable contractual commitment to supply special nuclear material for the term of a facility license. Such an amendment would by no means place the commission at a disadvantage. It could continue indirectly to control the extent of a commitment by limiting the period of a facility license.

**O**UR reactor group would still have no absolute assurance that it would receive the special nuclear material it requires for the period of licensed operation, even if a long-term commitment were enforceable. Section 108 of the act authorizes the recapture by the commission of special nuclear material in the event of war or national emergency declared by Congress. Just compensation in such case would have to be paid but the award would probably not take into account the business losses involved.

Despite my dislike of the recapture provision, it is not easy to make a strong argument against it. Special nuclear material is still too vital an element in our foreign and military policy to expect it to be left to the uncontrolled use of private interests if security considerations should become paramount.

The difficulty in obtaining a firm supply of special nuclear material illustrates the peculiar and perhaps unique status of the commission under the Atomic Energy Act of 1954. The commission functions as both a regulatory agency and as a contracting proprietary agency.

In its latter capacity, it owns production and utilization facilities. As I have already

indicated, it can make arrangements to acquire and distribute special nuclear material. It can make agreements to buy, sell, and lease source material. It can dispose of power produced by it, on a preferential basis, and it can perform other services for private interests.

**I**t is certainly undesirable for the same government organization to regulate an activity and also to act as the bargaining agent for the services and the owner's agent for the material which together make the regulated activity possible. I trust that the commission will not use its dominant position as a bargaining agent to impose regulatory requirements that would otherwise be improper.

A disturbing precedent exists in the case of the permits that have been issued for access to restricted data—or classified information. The commission has required that the permittees grant to it a nonexclusive patent license, although one questions whether the commission can condition the release of information on any ground other than security considerations.

I have tried to direct your attention to the complex of relationships between our reactor group and the Atomic Energy Commission.

I should like to turn now to a general question which will occur to most of you as utility lawyers:

How do these licensing requirements fit into the existing pattern of federal and state regulations of utilities?

The short answer to that question, I think, is that the existing pattern of regulation is not changed but imposed on that pattern is a new kind of regulation of a new type of fuel used to generate electricity.

**T**HE law clearly does not intend to interfere with the jurisdiction of existing federal regulatory agencies. It does not give the Atomic Energy Commission any authority over the distribution of electric energy. On the other hand, the Federal Power Commission has not been granted any additional jurisdiction over the use of nuclear fuels or nuclear reactors. Its jurisdiction over the distribution of electric energy is no more and no less if energy is the end product of nuclear fuel rather than fossil fuel. As many of you know, several members of Congress at-



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tempted to place atomic plants in the same status as hydroelectric facilities subject to Part I of the Federal Power Act, but this attempt failed.

It is also clear that the Atomic Energy Act does not affect the jurisdiction of state regulatory agencies over the rates, services, and accounting practices incident to the distribution of electric energy produced from nuclear fuel. Possibly, however, the functions of other state regulatory bodies will be affected, unless potential conflicts between federal and state constitutional powers are resolved.

I have by no means mentioned all of the problems which our reactor group will have to face. It must examine questions of liability and insurance coverage—a field only beginning to be explored. It must secure classified information from the commission and meet the commission's requirements for safeguarding and communicating that information.

It must negotiate with the commission prices for the distribution and acquisition of material, prices which will have a significant effect on the economics of reactor operation. It must work out patent policies under a law which incorporates divergent approaches to the same basic issue—how many patent rights should the government have as a result of its large investment in atomic energy development to date. Obviously, in this short talk I have not been able to discuss these and other matters of interest. The panel members you will hear from shortly will touch upon some of the other topics.

**I** THINK we are now in the pragmatic stage of atomic energy regulation. By that I mean that no legal Armageddon will eventuate during the next few years, as the commission moves ahead to cement the interstices apparent in the structure of the act. The commission, after all, is in a position of command because it controls the basic material.

However, the commission must recognize—and I hope prospective licensees will also recognize—that the private development of atomic energy is not simply a matter of business interest. It is a matter of vital importance to our economic well-being and

to our national policy under present world conditions. The commission can best reflect this recognition by encouraging and not merely tolerating the growth of a private atomic industry. Prospective licensees can best reflect it by enduring with patience and understanding a regulatory burden which would be intolerable if applied to many other business enterprises.

This basic recognition must also be reflected in the actions of lawyers. We must aid the commission's lawyers in shaping its procedures and policies. Some of our aid may be in an adversary capacity. I hope though that most of it will be on a co-operative basis. This hope is founded in part on a frank admission that although Congress has advised the commission to speak softly it has given the commission some very large sticks. The more compelling reason for my hope, however, is the belief that we can best utilize our professional talents in this new field in a spirit of co-operation rather than controversy.

**F**ROM the Olympus of objective analysis, atomic energy licensing poses some curious and unusual problems for lawyers. We have learned to adjust ourselves to the flexibility of administrative law and part of its terminology, such as "public convenience and necessity," has acquired meaning through experience. Many of these accepted terms, however, have not been transported into the field of atomic energy regulation. Moreover, the basis for regulation is novel. The 1954 statute is sweeping in scope and the legislative history is not very helpful in clearing up ambiguities. Members of Congress were so preoccupied with the Dixon-Yates controversy and patent rights that they failed to explore some of the important substantive provisions of the law. The result is that lawyers will not find it easy to advise their clients that definite courses of action can be taken, that precise remedies are available, or that the trend of regulatory events can be predicted. My own feeling is that we should be encouraged rather than dispirited by this state of affairs. If I spoke truly at the outset when I said that it is interesting to observe the process of growth, it should be even more stimulating to aid in that process.



## The Atomic Energy Act of 1954—Significant Changes

By EVERETT L. HOLLIS\*

## I. Introduction

So much has happened—so much has been said and written—we can scarcely believe that only about a decade has elapsed since the first atomic explosion. We have come from the first hush-hush “shot” in the New Mexico desert—to the nationally televised “shot” a few months ago.

Certainly one of the significant markers in the rapidly enfolding story of the atom was the passage, last summer, of the Atomic Energy Act of 1954. For, by that legislation, we embarked upon a new national policy of encouraging “widespread participation” in the development of atomic energy for peaceful purposes. The government monopoly created by the Atomic Energy Act of 1946 has been substantially broken.

## II. Background Developments Leading to New Law

It will be helpful, I believe, to review briefly some of the important developments occurring between the time of the 1946 act and the 1954 act which made it ripe for the adoption of the new legislative policies.

The policy that atomic energy be developed as a government monopoly surrounded by a wall of secrecy was to some degree the result of the desire to maintain America's international monopoly. Since the passage of the original act the United States lost this monopoly position. Almost six years ago President Truman announced that an atomic explosion had occurred in the USSR. Today it is no secret that many countries throughout the world are pressing forward with their own atomic energy programs.

Furthermore, the international interest in the atom has increased to a point where technological know-how may become a weapon in the cold war. Considerations of international prestige and international good will have become linked to the rapid development of atomic energy. For reason of foreign policy it has been contended that this nation must have a vigorous peacetime atomic program employing the full resources of private enterprise.

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Another change, from the international viewpoint, is that the hope of 1946 for the early establishment of a complete international control system has faded. Consequently one of the premises of 1946 for the government monopoly was considerably shaken. For at that time it was thought to be undesirable to permit private activity in an area which it then appeared might soon be placed under government control by virtue of international control agreements.

THEN, too, between 1946 and 1954 many fears and doubts were dispelled—fears and doubts which influenced the Congress to establish the government monopoly. In 1946 it was contended, for example, that the enormous destructive potentialities of atomic material precluded its private manufacture. In the intervening years, however, private industry did, in fact, produce and possess atomic materials in carrying out contractual responsibilities to the AEC. From the beginning, the AEC adopted a policy of relying upon private contractors. The success of this private contractor system highlighted the question of whether the government rôle in atomic development really had to be one of monopoly ownership as distinguished from government regulation of private activity.

Furthermore, the fears and doubts of 1946 regarding the dangers in the operation of atomic facilities were appreciably lessened. The record of no serious large-scale disasters in the operation of the nation's atomic plants resulted in a greater confidence that the public health and safety could be adequately assured without the necessity of government ownership of these plants.

Also there developed a general feeling that atomic power for civilian purposes was a foreseeable goal. One of the primary jobs to be tackled is that of reducing costs to make atomic power economically feasible—a job for which private enterprise is particularly well suited.

Another significant factor in recent years has been the reappraisal of this country's—and the world's—long-term power requirements. The great expected increase in future power demands has been cited as reason for driving forward with atomic power develop-

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ment. And questions were raised as to whether maximum progress could be achieved under a government monopoly system.

In addition, experience in the atomic energy program between 1946 and 1954 gave rise to the general belief that industrial atomic energy will develop in an evolutionary—not a revolutionary—fashion. This feeling is in sharp contrast to the fears expressed earlier that the sudden introduction of atomic devices might cause immediate and serious economic dislocations. There was apparently a grave concern in 1946 that large investments might, almost overnight, be rendered obsolete with resulting mass unemployment.

### III. General Comments on New Law

**T**URNING now from this general background review let us take a look at the 1954 act itself.

I will discuss some of the important provisions which are—or will be—of primary concern to industry. In doing this I may indulge in some oversimplification, but, if so, I am attempting to cover the principles and not details.

At the outset I emphasize that the new act is really only a broad charter. The Congress was dealing with many unknowns and imponderables and, of necessity, had to frame the act in general terms. As a consequence, the AEC is given great discretion to supply the specific content—guided by such general congressional mandates as providing for the common defense and security, and protecting the public health and safety. No matter how much one may study the provisions of the new act itself, the answers to many detailed questions will not be found. To get these answers we will all have to examine the act *and* the regulations *and* the interpretations to be issued by the AEC. Furthermore, some of the answers will not be forthcoming until we have all had some experience in operating under the act and the AEC regulatory system.

As I have already noted, probably the dominant change in the new act is the fact that the government monopoly in the field of atomic energy has been substantially reduced. In 1946 the Congress felt that the government must retain ownership of both fissionable material and of the facilities, like re-

actors, which produce that material in significant quantities. The new act while continuing to stress the necessity for close government scrutiny, moves in the direction of control by government regulation rather than control by government ownership. Private industry may now own and operate "production facilities"—like reactors. The new act does not, however, go all the way in eliminating the government monopoly since it retains the requirement for government ownership of all "fissionable material"—now called "special nuclear material." The term "fissionable material" has been dropped since it was deemed to have too restrictive a connotation—that of covering the fission process only. Apparently one of the decisive reasons for retention of government ownership of this material was the fear of an emergency in which all special nuclear materials might be needed for military use. It was felt that retention of ownership would make it easier to recapture all that material, if the need should ever eventuate.

It should be stressed that the new act does not remove the government from civilian atomic development. It does *not* represent a shift of authority and responsibility for atomic development from the government to industry. The new act provides authority for activity by *both* government and industry. As stated by the Joint Committee on Atomic Energy in its report accompanying the bill, the new provisions "aim at encouraging flourishing research and development programs under both government and private auspices." The premise is that the efforts of both government and industry will be necessary to a speedy and resolute attack on the problems of developing the civilian atom.

### IV. Control System of the New Law

**I**TURN now to discuss the basic structure of the control system of the act. I will discuss this system in terms of AEC control in four respects:

- Facilities
- Operators
- Materials
- Information

*Facilities.* Taking facilities first, the act refers to two kinds—*production facilities* and *utilization facilities*. In general, the former

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refer to equipment or devices capable of producing special nuclear material. Utilization facilities refer to equipment or devices capable of using that material or atomic energy. In general, if you want to do almost anything with these facilities you will need to obtain a license from the AEC—that is, a formal permission to engage in certain activities. Just exactly what facilities will be defined so as to require licensing will depend upon AEC regulations.

Proposed regulations were published in the *Federal Register* on April 15th. In general, these tentative regulations define the facilities to cover reactors, gaseous diffusion and other isotope separation plants, and chemical processing and fuel element fabrication plants.

The statutory definition of both production and utilization facilities includes important component parts of the total facility. Here again, the components, if any, that will require licenses will depend upon the provisions of AEC regulations.

The tentative AEC regulations apply only to complete facilities and do not cover component parts such as instruments and pumps—the AEC apparently does not intend to push the scope of its regulations to the full extent of its authority under the act.

LET us assume that we want to manufacture a utilization or a production facility. We must then consider what kind of a license we will need. Here it is important to distinguish between “commercial licenses” (the so-called class 103 licenses) and licenses for medical therapy, and research and development (the so-called class 104 licenses). Commercial licenses relate to facilities which AEC formally declares to be sufficiently developed to be of “practical value” for industrial or commercial purposes. The AEC has not declared any of the facilities to be of “practical value.” It is likely that the main kind of facilities licenses that will be of concern to industry, at least in the immediate future, will be for research and development facilities—class 104.

Several important differences flow from the distinction between the two kinds of licenses. I mention two.

(1) The act *requires* the AEC to charge for special nuclear material distributed to a commercial licensee, but the AEC may, if it

desires, distribute such material free of charge to a research and development licensee.

(2) Before commercial licenses can be issued by AEC it must inform the Attorney General and he in turn must advise the AEC whether issuance of the proposed license “would tend to create or maintain a situation inconsistent with the antitrust laws.”

**OPERATORS’ LICENSES.** A separate license is required for individuals who manipulate the controls of a facility. The idea of this requirement is apparently to establish a system similar to that of the Civil Aeronautics Authority for airmen—in order to assure that only fully qualified persons will actually be operating production or utilization facilities. Here also AEC regulations will be forthcoming—setting forth what qualifications and experience individuals must have in order to obtain these operators’ licenses. Proposed regulations were published in the *Federal Register* on June 30th.

**Materials.** In brief, three types of atomic materials are dealt with in the act: source material, by-product material, and special nuclear material. The act provides a licensing system for each type. Both source material (like uranium ore) and by-product material (like radioisotopes) may, as under the 1946 act, be owned and used by private persons—subject to AEC licensing. The controls over source material and by-product material were not changed substantially by the 1954 act. For the third kind of material—the special nuclear material—private ownership is absolutely prohibited. This ban of private ownership applies not only to that material which is produced in government-owned facilities but also to new material which a private owner may produce in his own facility. This results in the unusual situation of the production of a privately owned plant being “property of the United States.”

Although all special nuclear material remains the property of the United States, the new act does provide a greater promise for more widespread availability to private persons. This promise stems, in part, from the elimination of the requirement in the 1946 act that no private person may receive an amount of such material sufficient to construct an atomic weapon. Furthermore, there is express provision for a determina-

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tion by the President at least once a year of amounts of special nuclear material that may be distributed by the AEC. Proposed regulations on the receipt, possession, use, and transfer of special nuclear material were published in the *Federal Register* of April 15th.

It is worth noting at this juncture that both source and special nuclear materials are defined in the new act in such a way as to enable the commission to declare additional materials to be either source or special nuclear material. Hence new materials which may in the future be needed in the atomic or thermo-nuclear program can be brought under the control provisions of the act. The potential industrial consequences of adding materials to the present list of special or source materials are great. Suppose, for example, that the government decided to declare a new material to be special nuclear material; at that point private ownership of that material would be barred, and just compensation would have to be paid to all private owners. Before new materials could be added, however, the AEC must get the approval of the President and must formally advise the congressional Joint Committee on Atomic Energy.

It is clear that the situation of a privately owned factory using, and also producing, material which is entirely owned by the United States will create many problems not the least of which is that of pricing; for industry will pay the government for the special nuclear material it uses, and the government will pay for material which industry produces. The amounts of these payments are not spelled out in the act—only general rules are set forth. For example, if you are a commercial licensee you must pay a "reasonable charge" for the use of the special nuclear material you acquire from the AEC. Conversely, the AEC will pay you a "fair price" for the special material which you may produce in your privately owned facility.

**F**URTHERMORE, the AEC is authorized to establish guaranteed prices for all special material delivered to it within a specified period, not to exceed seven years from the date of the announcement of the guaranteed price. As you may know, this guaranteed price technique has been employed for some years now by the AEC in regard to raw materials delivered to it.

There has already been some concern about

the length of this 7-year period. Since a considerable portion of the seven years may be used up in the actual construction of a facility, there may be left only three or four years for production of special nuclear material from the completed facility. It has been contended that such a short period of effective price guaranty might impede the private financing of facilities.

Other important provisions in the act deal with such questions as the duration of licenses and the means by which licenses may be suspended or revoked by the AEC. These, of course, are relevant questions for anyone considering the investment of substantial sums in the atomic industry.

Of significance also is the rôle of the AEC in establishing standards for protection against radiation hazards arising out of activities conducted pursuant to AEC licenses. Here again the AEC has issued a proposed regulation setting forth such standards (*Federal Register*, July 16th).

**I**NFORMATION. There is a broad and special category of information called "restricted data" over which the AEC has great control. The concept of restricted data goes back to the 1946 act and is retained in the new act. This category of information is very broadly defined to include not only all data concerning design, manufacture, or utilization of atomic weapons, but also data concerning the production of special nuclear material or the use of special nuclear material in the production of energy. Excluded from this definition are data declassified or removed from the category of restricted data by action of the AEC. In the new act Congress recognized the importance of the free flow of information to the fullest extent consistent with the national security. Express recognition is given to the importance of disseminating information in furthering industrial progress as well as to scientific progress. Furthermore, the new act clearly recognizes that the decision whether to release information from the restricted data category frequently involves a difficult balancing of benefit to the nation against the disadvantages of informing unfriendly nations.

The new act meets this general balancing problem by establishing, as a declassification criterion, whether the information may be published "without undue risk to the com-



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mon defense and security." The AEC is expressly charged by law with the affirmative responsibility of determining, from time to time, what information can be declassified—and thus published—in accordance with the "undue risk" criterion. Included also, for the first time, is a provision that the AEC shall have no power to control or restrict the dissemination of information outside of any powers granted by any law.

THE new act also contains several important changes with respect to personnel clearance requirements. Under the original act the same clearance and investigation requirements applied to all personnel employed by the AEC and its contractors whether those employees would have access to very sensitive atomic information or only to small amounts of restricted data of minor security significance. The new act recognizes that there are varying degrees of sensitivity of information within the restricted data category. The AEC is, accordingly, authorized to establish the scope and extent of personnel security investigations to be conducted, depending upon the degree of importance to the common defense and security of the restricted data to which access will be permitted. This authority may enable the AEC to streamline its clearance system and possibly to provide quicker clearances where the information involved is of a relatively low order of security significance. On the other hand, it may be that the creation of different categories of atomic clearances will pose new administrative problems for the commission and for those in the atomic industry—problems, for example, of segregating people with different degrees of atomic clearances.

The AEC is administratively establishing a so-called "gray area" of less sensitive information of interest to industry. This will permit easier handling of classified information and will allow its dissemination to persons who will have received the newly established "L" clearance. The "L" clearance (presumably meaning limited clearance) should be distinguished from the so-called "Q" clearance which still must be obtained by persons requiring access to information of more acute security sensitivity. It is anticipated that "L" clearances will take only a few weeks as distinguished from a con-

siderably longer time to get "Q" clearances. The commission's tentative regulation (published in the *Federal Register* on April 16th) on the safeguarding of restricted data defines an "L" clearance as one which provides access to confidential restricted data, and a "Q" clearance as one which provides access to secret as well as confidential restricted data.

ANOTHER clearance change is that the AEC may now authorize contractors and licensees of the commission to give Department of Defense personnel access to restricted data based upon their military clearances instead of requiring a separate and additional AEC clearance. This change may result in easier working relationships between AEC contractors and licensees, and the military.

You will note that I have referred several times to security clearance of licensees. I now underscore this because the new act provides that prospective licensees for facilities must agree in writing not to permit any individual to have access to restricted data until that person receives AEC security clearance. Thus the personnel clearance system of the AEC will extend beyond employees of the government and of government contractors to employees of AEC licensees even though those licensees will be operating privately owned facilities.

I come now to the vexing and very important information access problem which confronts those who desire to make, for themselves, an evaluation of the commercial prospects of atomic energy—to determine whether it offers attractive opportunities for them. The new act does not deal expressly with this problem. There is no provision calling for licenses where the only activity involved is obtaining information—as distinguished from materials or facilities.

The AEC has recognized this problem. It has announced a new program and has issued tentative regulations (published in the *Federal Register* on May 24th) by which "confidential, restricted data" may be made available to any person who can show a potential use for the information in his business, trade, or profession. To get this information it appears that those interested will have to agree in writing to conform to all AEC security regulations.



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In some circumstances AEC will presumably let people have access to secret information. Here apparently the showing of need must be greater than that to get the confidential information.

In addition to its obvious interest in the terms of these information conditions, industry will also be interested in knowing what charges will be made by AEC for processing personnel security clearances, and the reproduction and handling of technical publications.

### V. Government Assistance

**I**MPHASIZED at the outset that the act contemplates activity by both government and industry. The act recognizes that the AEC may be in a position to provide materials and services to industry which industry cannot get elsewhere, and authorizes AEC to make such materials and services available to industry. The AEC may, for example, enter into agreements for the private use of fabricating or refining facilities owned by the AEC. The act also authorizes the AEC to conduct in its own facilities and laboratories, research and development projects for private companies. These powers may prove to be of great practical importance in the fashioning of co-operative arrangements between AEC and industry to speed atomic development.

Such arrangements must, however, be drawn in the light of the "no subsidy" provision of the act which, in general, provides that no AEC funds shall be employed in the construction or operation of licensed facilities, except under contract or other arrangement entered into pursuant to the commission's authority in the area of research and development.

This "no subsidy" provision may have a very important bearing upon the formulating of co-operative arrangements between AEC and industry. Its meaning is not clear. In fact, divergent views on its meaning have been expressed in public hearings by the members of the congressional Joint Committee on Atomic Energy—the committee which drafted the act. This is a provision to watch.

The provisions relating to AEC assistance to industry lead us now to a brief discussion of AEC's own rôle in distributing power. You will recall that there was very considerable discussion in the Con-

gress on this issue. In general this is the way the act resolved it. The AEC may build experimental power facilities in furtherance of its research and development responsibilities. It is authorized to dispose of power produced at these experimental facilities, as well as power produced as a by-product of AEC production of special nuclear material. Public bodies, co-operatives, and high-cost power areas are given a preference in purchasing both experimental and by-product power. A similar preference is given to these groups and areas in obtaining the commercial licenses for reactors we spoke about earlier. The AEC is excluded from engaging in the atomic power business as an independent function. It is provided, however, that government agencies other than AEC—such as TVA—may obtain licenses from the AEC to engage in the distribution of power if those other agencies are authorized by law to do so. The effect of these provisions is to postpone for future legislative consideration the rôle of the government in producing, marketing, or distributing electric energy.

### VI. Insurance

**I** SHOULD like to refer now to a problem which may limit the number of applicants for material and facility licenses—and, thus, hinder the development of the civilian atom. I refer to insurance—or rather the lack of it. A continued inability to obtain adequate insurance coverage for atomic hazards clearly may be a barrier to private investment. The AEC has recognized this problem and has granted security clearance to representatives of the insurance industry so that they might study available AEC data and perhaps make recommendations to AEC on how the insurance problem should be handled. It is not covered in the present act.

### VII. Patents

**N**ow a brief word about patents, a subject which evoked stormy congressional debate during the consideration of both the 1946 and the 1954 act. I mention here only a few high lights.

The new act, in general, opens atomic energy technology to the regular patent system.

The Congress did, however, manifest concern that one or a few companies might monopolize the peacetime uses because of the

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know-how and experience they acquired as AEC contractors. Two separate provisions allude to this concern of monopoly based upon patents. The first provides for limited compulsory licensing applicable to important atomic patents applied for before September 1, 1959. That is, under certain limited, specified conditions a patent owner may be required to license others for "fair royalties."

The second is a very complex provision which, in general, states that atomic inventions made or conceived under any contract, subcontract, or other relationship with the commission, regardless of whether the contract or arrangement involved the expenditure of funds by the commission, shall be deemed to have been made or conceived by the commission. The commission may, however, waive its claim to any invention. What this provision means is far from clear. For example, what relationship must exist between the AEC and the inventor to entitle the AEC to claim the invention as its own. This is certainly one area of the act which needs clarification. As it now stands it may put in jeopardy the patent rights of anyone who has entered into almost any sort of co-operative arrangement with the AEC—even when using his own money.

In addition to what the act says about patents it should also be remembered that the AEC may obtain patent rights through contracts and other arrangements it enters into with private companies. As an example, if you want to have access to secret information, you may be required to give AEC certain patent rights in inventions which result from access to that information. Such a provision is contained in the proposed AEC regulation on access to restricted data, published in the *Federal Register* of May 24th.

### VIII. International Activities by Private Industry

OTHER nations are striving to achieve the goal of atomic power at prices competitive with electricity derived from conventional fuels. Since power costs in some areas abroad are higher than those in this country, it may be that foreign nations will reach the goal of economic nuclear power before this country does. There is a business interest in this and other countries in the possibilities of supplying what may be an

emerging world market for atomic products. The Geneva Conference on the peaceful uses of atomic energy (August 8th-20th) will doubtless stimulate international interest in atomic developments.

As a matter of national policy it now seems likely that American industry will be encouraged to play a major rôle in supplying atomic equipment, facilities, and materials to other countries. The new act provides a legal basis for American industry to assume such a rôle.

The new act authorizes the negotiation of bilateral agreements with other nations (on a government-to-government basis) to provide for co-operation on the peaceful uses of the atom. These agreements, designated in the act as "agreements for co-operation," will not require congressional approval and may include provisions for American industry to supply equipment, facilities, services, and materials to other nations to the extent that such activities fall within the scope of the particular agreements.

I UNDERSTAND that more than twenty of these "agreements for co-operation" have been negotiated with other nations.

In planning activities which include dissemination of atomic information abroad for commercial purposes, industry must distinguish between security classified and unclassified information. If it is classified—that is security sensitive information—the information cannot be disseminated abroad except pursuant to the terms of an "agreement for co-operation" such as I have described.

Even if the information has no security classification there is another part of the act which must be considered. This is one which, in general, states that no person may engage directly or indirectly in the production of special nuclear material outside the United States without government authorization. No one knows with any degree of certainty what activity is covered by the concept of "indirect" production abroad. The Joint Committee report on the new act indicates that even selling unclassified services abroad might be covered. I understand that AEC is considering issuing some guides, pursuant to this provision, to give industry a general idea of what activities abroad will not be considered by it to be "inimical to the interests of the United States."

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### IX. Government Organization

WITH respect to government organization, the relationship between the AEC and the other agencies of the executive branch, notably the Defense Department, remains essentially the same as provided in the 1946 act. So far as the organization of the commission is concerned, the General Advisory Committee and the Military Liaison Committee are not substantially changed. Express recognition is given to the Office of General Counsel, in view of the importance of the many complex legal problems which the new licensing and regulatory provisions will present. Created for the first time in the act is an inspection division. This division has the duty of gathering information to ascertain whether contractors and licensees are complying with the provisions of the act and the rules and regulations of the AEC. Apparently complaints regarding the operations of licensees under the act can be referred to this division.

In so far as the rôle of Congress is concerned, the Joint Committee on Atomic Energy is certain to be far more than a mere observer. The new act emphasizes the continuing interest of the Joint Committee in the "state of the atomic energy industry." The committee is required to hold hearings—open or closed—during the first sixty days of each session of Congress to inquire into the development and growth of the atomic energy industry. The first of this set of hearings were held earlier this year. The hearings are published in three volumes and are a real gold (or should I say uranium) mine of information for anyone interested in the atomic industry.

As under the old act, the AEC is required to keep the Joint Committee fully and currently informed. But the committee also has a direct interest in the atomic activities of other agencies of the government. An affirmative responsibility to keep the committee informed is now placed on the Defense Department. Furthermore, all other government agencies are now required to furnish the committee, at its request, any information with respect to their activities in the field of atomic energy.

The new act also strengthens the rôle of the Joint Committee by requiring that ad-

vance notice be given to the committee before certain actions can be taken. Two examples are: first, the addition of new materials to the list of source and special nuclear material; and, second, the granting of long-term contracts for the purchase of power, such as the Dixon-Yates contract.

Another change which presumably will result in closer scrutiny by the Joint Committee is the requirement that AEC obtain specific congressional authorization for the acquisition or condemnation of real property, as well as for plant construction or expansion. Heretofore, the 1946 act provided a broad and continuing legislative basis for AEC's construction and expansion programs, and AEC only had to go back to Congress for periodic appropriations.

With the new requirement of specific authorization, presumably the AEC will now go through a two-stage congressional process. First, it will appear before the Joint Committee and seek to obtain a statute approving the particular projects. Second, it will go before the Appropriations committees and seek to obtain from the Congress the appropriations necessary to carry out these projects.

### X. Conclusion

WITH the new act and the regulations coming out, industry and the legal profession have an obligation to do their best in fitting the atom into the more normal framework of American life. This obligation cannot be discharged if all effort is concentrated on the solution of scientific and technical problems. Also to be solved will be legal, economic, and financial problems—and problems involving broad public policy. I believe that there will be many problems which will call for the skills and techniques of lawyers. And there will doubtless be much that can profitably be learned from other fields with which lawyers are already familiar—for example, the experience and practices of other government regulatory bodies. Then, too, it may be that members of the legal profession can perform a very valuable service by acquainting themselves with these problems—and by informing the citizens of the communities in which they practice about the problems and the importance to all of us of reaching sound solutions.

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### The Status of State Legislation in the Atomic Energy Field

By WILLIAM A. W. KREBS, JR.\*

**A**MONG the least anticipated, but in the long run certainly one of the most significant, changes brought about by the 1954 amendments of the Atomic Energy Act of 1946, was the creation of a rôle for the states in the development of atomic energy. Public utility counsel are accustomed to thinking about their clients' problems in terms of concurrent federal and state governmental functions, but this notion has come as something of a surprise to many in the atomic energy field, bemused by ten years of operations on the socialist island of national monopoly. You will look in vain through the voluminous hearings and debates which preceded the enactment of the 1954 law for any significant discussion of the part that state governments would have to play after the law was changed, and even now the implications of the change are only beginning to be understood.

None the less, the new law and the events which its enactment set in motion, have produced three new conditions, each of which has far-reaching implications for state governments.

First, a new legal class of private parties active in the atomic energy field has been created—licensees under the 1954 act. Heretofore, private persons and organizations operated atomic energy facilities and possessed special nuclear material and source material almost exclusively in the capacity of employees, agents, or contractors of the national government. Henceforth many of them will engage in similar activities in the capacity of licensees, incapable of invoking a federal immunity to shield themselves from state laws and regulations.

**S**ECOND, the locus of initiative for many important decisions is shifting away from the national government.

A third change, attributable to the advancing state of the atomic art as much as to the

passage of the 1954 act, is in the kind and pace of atomic energy development. It is moving fast, it is becoming increasingly privately financed, and elements of competition are making an entrance on the scene.

**F**ROM each of these changed conditions will emanate novel, challenging problems for state governments, some of which can be perceived today and some of which will undoubtedly remain unnoticed for a time. Already those of you who are thinking through the job of getting a nuclear reactor on the line in your client's plant have realized that you are subject to state controls and policies on many sides—and in some cases caught in a cross fire between them. Moreover, since state controls and policies are not necessarily a homogeneous, consistent set of regulations, were formulated in most cases well in advance of the 1954 act, and are administered by a wide range of state agencies, you are undoubtedly finding that state policies, as applied to your client's new activities, are at best unco-ordinated and at worst at odds with one another and with federal policies. Is the state department of public health going to apply the same health and safety standards to your reactor operation as does the AEC in administering your license? Is the state labor department going to go along with the state health department in dealing with the new hazards, or is it likely to sing solo? I am awaiting with great anticipation Commissioner McCarthy's remarks on how a state public utility commission should act on your client's petition for a certificate of convenience and necessity or for approval of your accounting for that new, high-cost atomic power. Perhaps you are already dealing with a state insurance commission, a state planning board, a department of conservation, or an interstate compact agency interested in what you plan to do with your cooling water. You certainly are mindful of the interest of the mayor, the city manager, the county commissioners, and the zoning board, and their point of view toward your new reactor as a prize to be sought or a nuisance to be abated.

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Beyond these regulatory matters, as responsible citizens you are likely to be concerned with whether your state governments are adequately discharging their responsibilities for obtaining, for their citizens, the fruits and profits from atomic energy development. Is the state development commission on its toes with respect to the needs of the new industry? Do the tax laws make sense as applied to your client's unusual financial problems in building and operating a reactor?

It was thinking along these lines that led the governors of the six New England states last year to appoint a New England Committee on Atomic Energy composed of twelve distinguished citizens to suggest an over-all approach to the problem of the states. Among the committee's recommendations was that state action should be preceded by an orderly and searching analysis of the state rôle by each responsible state activity co-ordinated through the governor's office. To accomplish this end, as well as others that I shall mention in a moment, the committee recommended the enactment of a uniform atomic energy law, a draft of which you may have read about, and scanned, in the June 9th issue of *PUBLIC UTILITIES FORTNIGHTLY*. Bills substantially similar to the uniform law were introduced early this year and enacted by Maine, New Hampshire, and Connecticut. As envisioned by the New England committee, these laws have the following principal objectives:

1. They seek to establish as the basic policy of the state that, so far as possible, there should be within the state a single, harmonious system of state and federal regulation in the atomic energy field and pledge the co-operation of the state government to the national government to this end. They also take substantive steps toward co-ordinating automatically the federal and state licensing procedures, to insure that there is not a jurisdictional no man's land between federal and state statutes.

2. They seek to initiate an orderly, comprehensive review of state functions and responsibilities that may be affected by atomic energy development, by specifically requiring each major administrative unit of the state government to make such a re-

view with respect to its functions, and present recommendations to the governor.

3. They seek to provide a focus for the development of state policy in atomic energy matters by creating, on the staff of the governor, the office of co-ordinator of atomic development activities. The co-ordinator is to serve as advisor to the governor with respect to atomic energy; he is given the duty of co-ordinating the studies, recommendations, and proposals of the departments of the state government and of political subdivisions, such as cities and towns, and of providing liaison between his state, its sister states, and the AEC on atomic energy matters.

In addition to the legislative action of Maine, New Hampshire, and Connecticut, to which I have just referred, Rhode Island in January created a statutory five-member atomic energy commission with duties like those of the co-ordinator under the uniform law.

Elsewhere than in New England similar interest is being shown. Illinois has just enacted into law a bill to create an atomic power investigating commission of fifteen "to make a thorough investigation and study of the economic and social impact that the civilian use of atomic power may have on the citizens" of the state; the commission is to report prior to March 1, 1957. In Michigan, a study committee made up of representatives of state departments appointed by the governor reported early in the summer, recommending executive action for the creation of a study commission to perform the co-ordinating function.

I understand that the governor of Minnesota intends to appoint an advisory committee on atomic energy soon. The Texas legislative council in May published its study, "Implications of Atomic Energy for Texas," prepared in response to a concurrent resolution of the Texas legislature of May, 1954.

Aside from the impact of atomic energy on the state public utilities commissions, about which we are to hear from Commissioner McCarthy, the most immediate problems are arising in the field of health and safety in which most states have established responsibilities and administrations. Here the dominant problem appears to be the proper allocation of responsibilities among the fed-



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eral Atomic Energy Commission, the state health authorities, and the state labor authorities, although there are other state and federal agencies which are also concerned less directly.

**I**N most cases new legislation does not appear to be necessary, and activity is on the regulatory front. I have recently been surveying the extent to which state labor or health agencies are already applying, or in the near future proposing to apply, legal controls to activities in which ionizing radiation is produced—usually including that from X-ray machines, particle accelerators, and radioisotopes, as well as nuclear reactors. While this survey is not yet complete, some type of activity along those lines is a fact, or likely soon to be a fact, in Arkansas, California, Colorado, Connecticut, Delaware, Florida, Kansas, Kentucky, Michigan, Missouri, Montana, New Hampshire, New Jersey, New Mexico, New York, Pennsylvania, Texas, West Virginia, Wisconsin, and Wyoming. Some states may find it necessary, as did Massachusetts recently, to take legislative action to extend the authority of existing departments into the field of radiation hazards.

While there may be problems of particular interest to the bar concerning the extent to which the federal government constitutionally can, and, in fact, does exclude state activities by pre-empting some portion of the field, the most important and pressing need—other than for hard work—is for co-ordination. It is a happy circumstance that the Atomic Energy Commission, under the leadership of Mr. Price, is taking the lead in that direction. As you may know, representatives of a majority of the states accepted an invitation in July to meet with representatives of the federal government in Washington to discuss these problems. If the fruitful exchange of information which transpired at that meeting can be translated into a long-term system of co-ordination and integration, and if this can be accompanied by an equally well-planned and integrated development within each state, all will be well.

The members of the bar, and particularly of the public utility bar whose experience with this kind of problem has been most extensive, have an especially great responsibility to see to it that a good job is done as the states assess, and then develop, their important rôle in atomic energy affairs.

### Atomic Energy from the Regulator's Point of View

By JOHN H. MCCARTHY\*

**T**HE invitation of the bar to me as an engineer and chairman of the Michigan Public Service Commission was, I assure you, most flattering and I welcome the opportunity to place before you, and the utilities you may represent, some of the serious questions that have arisen and continue to arise. I regret that I cannot prescribe all or a major part of the desired answers for reasons hereinafter stated.

My association with and education in the field of the atom commenced early in 1952 when I first learned that several of the utilities in Michigan were actively engaged in their search for a new source of heat energy as a substitute for the Btu's taken from the fossil fuels. It appeared desirable, therefore, that I ask for clearance from the Atomic Energy Commission so that our commission

might be informed of the general activity of the group engaged in the early research project and more specifically to be cognizant of the regulatory problems pertinent to the public utilities.

Subsequent to the clearance, I am pleased to state, I had the opportunity of spending some time as an invitee of the AEC at several government installations and participating in conferences with nuclear specialists. For the past three years I have kept informed on the progress made, although I trust you will appreciate that I do not claim to be other than an interested engineer making an attempt to determine the application of this nuclear development to the utility industry.

**I**N my opinion, as chairman of the Michigan Public Service Commission, the advent of the atom has not changed the funda-

\*Chairman, Michigan Public Service Commission.

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mental principles of rate making. I do not claim that it may not at some time in the future, but, at least for the present and the proximate future, there appears to be no need for a change in fundamentals. My opinion, as it is, is premised upon the understanding that fissionable material will, if present research and development continue to prove successful, merely be used as a substitute for the fossil fuels in supplying heat energy at a basic cost not less favorable than present conventional fuel costs. *Therefore, the value (as defined by law) of utility plant devoted to public service will, in the absence of any statute to the contrary, continue to be an important basis for determination of a fair and reasonable rate of return.* However, I candidly admit that other problems are created.

Let us consider, at the outset, the broad influence of this new and potent source of energy. Under typical statutes a regulatory commission assumes a degree of responsibility for co-ordinating the activities of other state agencies affecting the health, welfare, and safety of our citizens. For example, under our Michigan Public Service Commission rules we have provided for the minimum construction standards in power plants, substations, and the like, as a safety precaution. Similarly, when nuclear fuel is used, we must recognize our obligation to impose standards for the use of fissionable materials in the generation of heat energy which will produce steam to be used in the turbine-generator function. Responsibility of the same general character rests with the regulatory agency when the public avails itself of common carrier service within our state. Whether nuclear fuel eventually provides the motive power for common carriers or in some form is the commodity to be transported as a product of commerce, the same general obligation has been imposed on the Michigan Public Service Commission to make certain that the safety of the traveling public (used in its broadest sense) is protected. With the advent and use, transportation, and storage of radioactive materials, our duty as a regulatory authority to adopt proper standards is now prescribed by statute.

**U**NDER the provisions of the Atomic Energy Act, conflict with the power and

authority of the federal government seems probable. Further study should resolve any possible conflict. To digress for a moment, Michigan's governor, G. Mennen Williams, at a recent meeting in Washington, D. C., conducted by the staff of the AEC and called for the purpose of considering its proposed rules and regulations relative to the possession and use of nuclear materials, drew the attention of those assembled to an area of possible conflict; i.e., "when does the reserved police power of the states relating to public health, welfare, and safety commence, and, as a corollary, when does the authority of the federal government first occur when radioactive material becomes the object of general use and the subject matter of commerce between the states?" As Governor Williams posed the question, "Is it exclusively federal, exclusively state, or should it be a joint responsibility of both?"

I am fully aware of the intent and purpose of the Atomic Energy Act of 1946 as amended by Congress in 1954, although I do not profess to know, as well as you of your honorable profession, the full import and effect of such a question raised by Governor Williams—that determination I leave to you who are better qualified to judge the respective rights of the states and federal government. Of course, as head of a regulatory agency, I intend, at least the first time our jurisdiction is questioned, to borrow some of the lawyers' language in ruling upon the presence or lack of our state regulatory jurisdiction. It may be that eventually many of our statutes will require revision due to the advent of the atom. In February of this year, our governor appointed an atomic energy study committee, consisting of state department heads (including myself), who are most vitally concerned with the public health, welfare, and safety, to advise the governor and the legislature relative to new problems created by the use of atomic energy. We concluded that it would be premature to propose legislation at this time, but that it was not too early to be thinking about substantive changes in the laws, as well as preparing a safety code.

**A**GAIN, assuming the true character of an engineer—to be practical—most of this possible conflict in jurisdiction, if not all, might be avoided if the states and the

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AEC could promulgate and adopt a completely uniform code governing the use, transportation, storage, and disposal of any and all radioactive materials. This plea for uniformity on the part of the states was made by our governor at the forty-seventh annual Conference of Governors in Chicago on August 10th, in a resolution which was adopted. As a result, the governors' executive committee has been designated to work with the federal government to obtain uniformity in the application of controls relating to the safe use of nuclear materials.

Heretofore, I have touched briefly on the broadest problems facing a regulatory agency in a new field wherein there is a total lack of past decisions upon which an agency such as a public service commission may rely or draw upon for rulings on subsidiary questions.

I previously stated that I believe the use of nuclear fuel by public utilities would not per se change the basic philosophy of those charged with the responsibility of fixing just and reasonable rates. However, a serious factual question is presented in the *evaluation of what determines operating expenses in contrast with capital charges during the research and developmental period* which lies ahead for perhaps the next ten years. Even though I may be accused of dogmatism, and I take the risk, I believe that just as long as true research and development occur in establishing the technology and costs of operation of reactors and the transfer of heat energy, there is no question about those costs being truly operating expense. It is merely expending money for a new source of fuel, as a substitute for coal, gas, or oil. When, however, the complete success of nuclear reactors has, together with its economics, been finally established; and the nuclear reactor assumes its eventual rôle of a conventional producer of thermal energy or motive power serving the public generally; and when it has been accepted by the public as well as the utility as a conventional and economic mechanism for such purposes, then, in my opinion, the transition period will have expired, and it passes from the pioneering or experimental stage to the utility plant account.

WHAT I have heretofore said about "research and development" accepts the

meaning which truly reflects a state of inquiry as opposed to that state of development which represents an accomplished fact—its acceptance as a new source of heat energy with no fundamental problems unsolved. I call your attention to the fact that basically there are now four distinct types of reactors:

- (1) Pressurized Water
- (2) Sodium Graphite
- (3) Fast Neutron Breeder
- (4) Homogeneous

One may, and probably will, find one or more of the four types accepted as a satisfactory replacement of the conventional facilities. That fact alone should not, however, preclude further research and development of the remaining types. Theoretically then, it is possible for one regulatory agency to order and direct that expenditures, for that which represents a reactor and heat transfer facilities which have been accepted and placed on the line, be charged against the plant account. Within its jurisdiction, true research and development may still be in progress by another utility, and the recorded cost should be properly charged to Account 801 of the Uniform System of Accounts. In fact, it is entirely possible that at some time the regulatory agency may disagree with management and refuse to approve of continued research and development by a given utility, if upon competent evidence it concludes that such research and development bear no evidence of eventual success. In other words, the time may come when the regulatory agency is satisfied that in designing, constructing, and operating a reactor of a particular type further research is not only fruitless but also impracticable. In that event, the utility should not be permitted to reflect further expenditures in its capital or operating expense accounts.

THIS philosophy was, in fact, adopted by the Michigan Public Service Commission in its approach and consideration of a petition submitted by one of the utilities operating in Michigan. The hearing on this petition required about eight hours of testimony relating to expenditures to be made in the research and development of a fast neutron breeder reactor. The character of the testimony submitted included that of nu-

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clear scientists, engineers familiar with the use of nuclear fuel, and utility personnel. Consequent on the submission of evidence of that character and upon consideration by the full commission and its staff, our order was entered permitting a contribution, in aid of research and development attendant upon a fast neutron breeder reactor, to be charged to Account 801 of the Uniform System of Accounts.

It is now my purpose to discuss that order, but before doing so I should tell you that in this case the Michigan Public Service Commission retained and considered the testimony of its own experts. The petition submitted presented an accounting question. Should the building of a fast breeder nuclear reactor, having a capability of providing heat energy sufficient to operate a generator having a capability of not less than 100,000 kilowatts, require its cost of construction to be charged to Account 801 of the Uniform System of Accounts—or was it to be recorded as any other utility plant account? The question on its face was simple and innocuous. The accounting question was entirely dependent upon factual questions. What was the state of development of a fast neutron breeder reactor which the utility, together with others, proposed to construct, as contrasted to other types, which at least four other groups were considering?

**Y**ou can imagine the dilemma facing the commission, which is comprised of a lawyer, a businessman, and myself (an engineer), together with its staff, comprised of accountants, engineers, and others. We expected the utility to submit formal proofs of the virtues of a fast neutron breeder reactor as compared with all other types including the less known characteristics of a homogeneous reactor. Could the Michigan Public Service Commission accept this unilateral proof and predicate its opinion and order on such testimony if submitted? We believed that course of action unwise and with complete immodesty reached the lawyer-like conclusion to present our own testimony.

The utility submitted proofs of (a) the basic concepts of a fast neutron breeder reactor, (b) a comparison of all other known types of reactors, (c) a comparison of the nonregenerative, the regenerative or converter, and the fast neutron breeder reactor,

(d) their respective utilization of fissionable material, (e) the estimated cost of producing a kilowatt-hour of electric energy, and (f) the design and safety of operation standards and many other related factors. In preparing for the submission by the staff of its testimony we perhaps violated many of the concepts of the legal profession—but I must admit we conferred with experts in the field who were not, for various reasons, able to testify. As I mentioned earlier, an engineer desires to be practical, especially when entering a new field such as that under discussion. Nevertheless, we did request one whom we believed pre-eminently qualified by training and experience, together with his present association with the Phoenix project of the University of Michigan, to appear as an expert witness and testify and submit to both direct and cross-examination.

**C**ONSEQUENT upon that hearing, we considered the matter at great length and with due deference found, among other things, that (a) the fast neutron breeder reactor possessed the greatest long-time possibilities to produce electric energy at the lowest cost (and I emphasize this); (b) as designed, it was completely safe in operation; (c) it was the duty of and proper for a utility to search exhaustively to find a more economical method of producing electric energy, in fact, the correlative duty of a regulatory commission such as ours to encourage this type of research; and (f) that the only practicable method of establishing the reliability and efficiency, as an instrument of power generation, of a fast neutron breeder reactor was to build and operate one. Having been compelled by the evidence to make such findings, we then drew the controlling conclusion that the utility was, together with others, engaged in what honest minds could not be expected to differ on; they were engaged in true research and development work. As such, the contribution of the utility, in our opinion, represented an operating charge against Account 801.

To be perfectly frank and candid, the result reached should not be construed as an indication that we believe the design final—or that the design and construction of a second reactor of the same type will justify the same conclusions. As to that, we reserve any decision and will, I assure you, depend upon the future facts as they develop.



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It would be presumptive for me as chairman of a regulatory agency to make any statement that might influence the final decision of any other comparable agency of government. You will realize the full import and meaning of this statement, when you consider that the facts in one case may have little in common with the facts in another. While the action of our commission and some of the statements reflected herein may be considered as "pioneering" I, personally, do not regard them as such.

Regulatory agencies will, I am certain, be confronted with numerous accounting questions which I will not attempt to dispose of at this time, because of the fact, among other reasons, that we do not now have and perhaps will not have a free and independent market for the sale of by-products from certain types of reactors. I should like to treat first the initial charge for the fuel element used in a reactor. Should that be charged off as in the case of conventional fuels? The answer may well depend upon the type of reactor. It may also depend upon the agreement with the AEC which must, in the first instance, furnish this fuel element. If the reactor produces more material than it consumes, and this by-product is sold to the AEC or others, should the price received be used as an offset to the initial fuel cost, or should the proceeds be accounted for as non-utility revenue? The answers to these questions, I believe, rest in the underlying agreement with the AEC. When the traffic in nuclear or fissionable material becomes free and established there may still be another answer. When these facts become a reality I can but suggest the application of sound accounting principles. Similarly, when and if patents are granted to one or more utilities, and revenues follow, is it then to be treated as utility revenue? The answer to this question may well depend upon whether expenditures have been treated as a capital or operating charge. It becomes very apparent then, that until facts are established, there is no yardstick to offer.

SINCE accounting may be said to be primarily the recording of all revenues and expenses in strict accordance with a set of ground rules, it is inevitable that progress in the nuclear field will present questions which have not risen heretofore. Long ago,

the federal agencies and the states (unless specifically prohibited by their statutes) adopted the Uniform System of Accounts. Most certainly, in those states wherein the first reactors (constructed solely by private capital) are placed in operation, there will first occur the necessity for determination of new precepts in the accounting bible; e.g., what about displacement of undepreciated plant?

As this need for treatment of recorded costs of coal-handling equipment, boilers, etc., presents itself, the accounts should be revised to accommodate new definitions and classes of plant. So also should the problem of early obsolescence of nuclear reactors be considered and the depreciation rate adjusted to reflect the best judgment of engineers and accountants. The many problems surrounding the use of nuclear fuel place upon each regulatory agency an obligation to initiate a continuous study of all factors which must be weighed no matter which type of reactor is used.

THE bar may rest assured that the regulatory agencies are well aware of these serious accounting problems and that an informed judgment will be exercised in accordance with sound accounting principles. With respect to the whole subject of atomic energy, it would seemingly require the close co-operation by the utilities involved with both the state and federal governments to the end that there may be complete agreement on the many and differing facts. The National Association of Railroad and Utilities Commissioners is now actively engaged in a search for the facts, and other state regulatory agencies will, I am certain, make the same searching inquiry to the end that there will result a *uniform application of rules governing accounting treatment*.

In this prodigious undertaking, we may be enlightened as to the method to be employed in attaining the objective sought by the governors of the states and the NARUC—and I solicit the aid of the bar in the adoption of a uniform code governing the use of nuclear fuels and in the establishment of uniform accounting treatment by the various regulatory agencies involved. Remember, if we have the will to work together, we can attain peaceably the marvelous benefits of atomic energy in the fields of medicine,



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industry, agriculture, and the generation of electricity. Until recently, the atom has been developed for its *destructive* potential, now, in Geneva, the principal nations of the world

are learning of its *constructive* possibilities. God willing, in this manner, all people will be benefited through emphasis on "Atoms for Peace."

### Atomic Energy Act of 1954—Impact On Equipment Manufacturers

By STODDARD M. STEVENS\*

As the interesting discussions of others on this program have indicated, there are great conflicts of public policy which remain unresolved as the new atomic industry starts to feel its way toward its as yet indefinite, but probably glowing, future—accommodation of the requirements of military security and industry's need for facts; balancing the protection of the community's health and safety against the retarding effect of too strict governmental regulation of a sector of a free economy; and weighing the public interest in the results of tax-financed developmental work against the benefits derived from a private enterprise spurred by the prospect of reasonable economic return from the product of its investment.

Although the Atomic Energy Act of 1954 substantially reduced the government's monopoly in the field of atomic energy, and permits private industry to own and operate production facilities, such as reactors, the act does not eliminate the rôle of government in the development of a civilian atomic industry. Despite sweeping statements in the press and popular journals to the effect that the atom has been released to industry and the cries from certain quarters that the atom has been "given away" to private interests, there has not been under the act a shift of full authority and responsibility for atomic development from government to industry. Two examples may be cited briefly as illustrations of the unique relationship between government and private industry created by the act: security and patents.

MANY features of reactor technology, including engineering know-how and costs, remain classified and, if open to private parties at all, are available only after

compliance with comprehensive security regulations. To the extent that access to necessary technical data is limited, increased participation by private industry in atomic development is hindered.

The patent provisions of the 1954 act do not permit the normal operation of the traditional patent system in this industry. Thus, the act prohibits patents on inventions useful in atomic weapons, permits the AEC to take title to patents filed on inventions conceived during any "relationship" with the commission, and permits compulsory licensing of patents in the atomic energy field. Although the commission has taken a forward step in its regulations with respect to access to restricted data for civilian use by waiving some of its rights under § 152 of the act, many basic problems under the patent sections of the act are statutory and cannot be resolved by regulation if the full stimulus of the traditional patent system is to be used to encourage development in this field.

BUT in addition to these great issues of public policy, this new industry is confronted also with another series of problems concerned with the relationships among its components. Even as the first contracts for the sale and purchase of atomic energy equipment are being drafted, it is becoming apparent that unique elements inherent in the nature of nuclear energy require not only adjustment of certain traditional contract provisions but also radically different approaches to certain aspects of the usual contractual relationships. It will be possible here only to illustrate briefly some types of problems confronting the equipment manufacturer in the atomic energy field.

At the outset the term "equipment manufacturers" needs some delineation. In the building of power reactors and of research reactors the products of dozens of equip-

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ment manufacturers are involved, and it may be said that the legal problems confronting the equipment manufacturer vary directly with the size and complexity of the equipment which he is to furnish. Where the manufacturer becomes the prime contractor or one of the principal subcontractors, his problems are greatly expanded over those of the manufacturer who furnishes merely bolts or screws or steel plate meeting certain specifications.

**I**N the atomic power field, a few of the equipment manufacturers are prepared to design and construct and install a complete plant and this may include, among other things, determining the type of and building the reactor, fabrication of the fuel elements, installation of these in the core together with the necessary moderators, reflectors, and coolants, fabrication and installation of the complicated control system and machinery for handling and replacing fuel elements, manufacture and erection of containment vessels and for the disposal of radioactive but partially spent fuels, and construction of the heat exchangers, steam separators, superheaters, and similar equipment and of the turbines. Some of these parts may be subcontracted where the manufacturer is not customarily engaged in their fabrication, but the prime or a major contractor takes on unusual responsibilities, and this is particularly true where he participates in the design of the facility in which problems of economics are becoming more and more important. For example, the rate of consumption of special nuclear material and the possible production of nuclear material in different but usable forms are of vital importance in determining the true cost of nuclear power plants.

From a legal standpoint, perhaps the problem which is of most universal concern to the manufacturers of atomic equipment is that of so-called product liability.

The law of product liability has moved a long way from the early common law decisions which held that a manufacturer was not liable to persons other than the immediate purchaser for harm caused by his product.<sup>1</sup> From the imposition of liability on manufacturers for injury to third parties when the manufactured article was "inher-

ently dangerous"<sup>2</sup> the courts moved on to allow third parties to recover where the product, although not inherently dangerous, was likely to cause injury if through negligence it was defectively made.<sup>3</sup> The next extension of liability was to permit third parties to recover against manufacturers of defective structures even if attached to real estate and not in control of the manufacturer.<sup>4</sup> Thus a subcontractor who had manufactured a natural gas storage tank for a contractor for installation at the plant of a gas company was held liable in the suit for damages arising out of the explosion of the tank when the accident occurred thirteen months after the manufacturer had completed the tank and had relinquished control to the gas company, and where the design of the tank had the approval of the customer on the basis of independent expert advice.

Going beyond even this extension of the doctrine of product liability, there are being advanced doctrines of absolute or insurer's liability which would dispense with the necessity of proving negligence or fault on the part of the manufacturer. Under this theory which has not, as such, been accepted by the courts with respect to manufacturers, a plaintiff need prove only the fact of an accident and a causal connection between the product of the defendant's manufacture and the accident, and a loss or injury resulting from the accident.

**T**HE new factor in the field of product liability as it applies to atomic energy equipment is the magnitude of damage to persons and property which might be occasioned by an atomic accident.

The range of possible plaintiffs in the event of injury arising out of faulty manufacture of atomic equipment includes the customer who uses the equipment, his employees, and members of the public. Thus in the event of radiation escaping from atomic

<sup>2</sup> *Huset v. J. I. Case Threshing Mach. Co.* (CA 8th 1903) 120 F 865; and *Thomas v. Winchester* (NY CA 1852) 6 NY 397.

<sup>3</sup> *MacPherson v. Buick Motor Co.* (NY CA 1916) 217 NY 382, 111 NE 1050.

<sup>4</sup> *Moran v. Pittsburgh-Des Moines Steel Co.* (Pa WD 1947) 6 FRD 594 (CA3d 1948) 166 F2d 908, certiorari denied (1948) 324 US 846, (Pennsylvania WD 1949) 86 F Supp 255, (CA3d 1950) 183 F2d 467; and *Foley v. Pittsburgh-Des Moines Steel Co.* (Pa Sup Ct 1949) 68 A2d 517.

<sup>1</sup> *Salliotte v. King Bridge Co.* (CA6th 1903) 122 F 378; and *Curtain v. Somerset* (Pa Sup Ct 1891) 21 A 244.

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energy equipment, the customer may suffer damage to his property or his business and his claim may include loss due to interruption of his business and inability to use the equipment; employees may be injured while working around the equipment; and members of the public may be injured at varying distances from the source of radiation. The numerical and geographical range of plaintiffs among the general public is unprecedentedly wide and unpredictable because of the possibility of radiations being carried by wind and water, and by other means.

We are told today that the possibility of atomic accident is remote, that the design of reactors includes so many safety factors that the chain reaction cannot get far out of control, and that such a reaction can be quickly and automatically ended, that the danger of the contamination of the atmosphere or of water is almost nonexistent, and that consequently, in case of product failure, mishap, or negligent operation, destruction and damage would be confined to the power station itself and would be greatly minimized. Let us hope that this is correct.

**A**LTHOUGH it is imperative in this industry that there be no accidents, and despite the fact that only one serious reactor accident is known to have occurred in the operation of some thirty reactors outside the iron curtain, from which no fatalities resulted, there may exist the possibility of an extraordinary and simultaneous combination of a series of human and mechanical failures which conceivably could cause damage of unprecedented magnitude.

Because of nuclear safety features inherent in the design and construction of reactors they cannot explode like a bomb. A temporary increase in temperature will tend to reduce or stop the nuclear reaction. Under certain extraordinary circumstances a reactor's neutron output might double in a few thousandths of a second causing the fuel elements to melt before the reactor shuts itself down. If the fission products are released from these fuel elements the radioactive fission products should be inclosed within the reactor containment tank or sphere. If, however, the fission products escape from this containment a cloud of radioactive substances might then rise into the air to be carried for greater or less dis-

tances depending upon wind and other factors. Such a cloud could cause injury to persons or property either by direct radiation or by settling of radioactive particles upon the area beneath. In addition to the direct effects of exposure to radiation, a large area might have to be evacuated with consequent losses arising from its inaccessibility.

**D**EVELOPING legal doctrines of product liability applicable to the peculiarities of a reactor accident poses great difficulties to the equipment manufacturer and his customer. But the problem is heightened for the manufacturer because of probable lack of control over operation and maintenance of his equipment. Furthermore, a serious reactor accident may result in destruction of the equipment, making it impossible to determine whether operational error, sabotage, or equipment defect was the cause. For this reason it is suggested that users of atomic energy equipment might reasonably be expected to assume by contract a greater measure of responsibility than, for example, in the traditional purchase and sale of steam boilers or turbines.

In analyzing the possible application of the theory of product liability to manufacturers of atomic energy equipment, it is important to distinguish between the possible catastrophe of a runaway reactor and accidents of a lesser order, such as the escaping of radiation in limited amounts. The economic policy justification for the imposition of product liability may apply to the lesser order of atomic accidents but does not apply to a situation where a host of plaintiffs seek recovery against a corporation whose total assets could not meet the claims. It may be that for the first time the law will be dealing with an industry in which the total available resources of any industrial unit engaging in the field and the total resources of insurance available to any given unit would be insufficient to meet the potential claims for loss and injury.

However, the policy behind product liability may be applicable to the type of accident involving escaping radiation in limited amounts. Certain problems of proof peculiar to the atomic energy industry may develop, but the principles of liability can be applied to those responsible for escaping radiation in much the same way that they have

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been applied to those engaged in other hazardous activities, such as the use of noxious fumes, dynamite, and radium.

Although compliance with accepted standards, codes, and conservative methods of design have not always convinced a jury on the issue of negligence, particularly where experts have testified with the wisdom of hindsight that even safer methods or materials might have been used, careful observance of existing standards of manufacture and AEC regulations, such as the recently issued regulations on standards for protection against radiation, and maintenance of records to prove such observance are essential both in order to prevent atomic accidents and to permit of a defense of absence of negligence. It is possible that judicial weight will be given to the fact that all aspects of design, manufacture, and operation of atomic facilities are subject to regulation by the federal government under its licensing authority, and that among the standards for the issuance of licenses is that the processes, operating procedures, the facility and equipment, the protective devices, the site of the facility, and other technical specifications provide reasonable assurances that the health and safety of the public will not be endangered.

**W**HETHER or not the courts would impose an insurer's absolute liability upon the manufacturer of atomic equipment, under the developing doctrines of product liability, the manufacturer, under existing law, would be subject in general to liability for defects in the manufacture of the equipment which are established as the cause of injury. In view of the enormous potential liability under the product liability doctrine in the atomic energy field, a solution to the liability problem is imperative.

It now appears unlikely that the private insurance industry will ever be able to assume the full risk of atomic accidents. The statement in the AEC insurance report, discussed by Mr. McQuillen, to the effect that existing insurance facilities can insure an aggregate limit of public liability substantially equivalent to that normally required by other major industrial enterprises, does not offer much hope that the basic liability problem in this industry will be solved by private insurance.

It is in the interest not only of equipment manufacturers but also users of atomic energy equipment, including public utilities, and the public, that intensive attention be given to possible alternatives. There might possibly be developed a private self-insurance pool by companies engaged in atomic energy work with government insurance or reinsurance after absorption of the maximum risks which the private companies could reasonably undertake. Possibly there should be considered direct insurance of certain types of risks by the government or a government insurance organization such as the War Damage Insurance Corporation set up during World War II. Still another possibility is legislation limiting the amount of recovery for atomic accidents, such as the limits on liability for bodily injury in the case of common carriers by air engaged in transportation between countries subscribing to the Warsaw Convention and limitation under Admiralty law of third-party liability of ocean carriers to the value of the hull. Many states also have wrongful death statutes which limit liability in death cases only.

The whole question of product liability is one which managements and lawyers are going to have to wrestle with over the next few years. I do not pretend to know the answers or to have the solution, and I merely point out that in advising our clients, whether they be equipment manufacturers or public utilities, this problem must have consideration. Certainly the most rigid precautions must be taken both in the design of the facility, the fabrication of the materials, the erection of the plant, and its operation after it has gone critical.

**A**SIDE from the problems of product liability there are a number of others of a novel and unusual nature which confront the equipment manufacturer and his legal advisers. Where the design of the facility is largely in the hands of the equipment manufacturer, warranties or statements of expectation of performance may become important particularly from the economic standpoint of production of electric energy on a competitive basis with conventional stations. Obviously, in a field as new as this one, warranties of performance are dangerous as they must depend on the evaluation of existing criteria which may be superseded or outmoded during the course of construction.



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The pricing of atomic energy equipment poses considerable difficulty at this stage of development. In addition to uncertainties resulting from the continuing regulation of atomic energy installations by the federal government which could require expensive changes in design after considerable initial investment, there are the imponderables posed by the lack of experience with the manufacture of this type of installation for private customers and the need to incorporate the rapidly developing improvements.

It has been indicated that there is a wide variation in price estimates even of more conventional pieces of equipment. Thus, in response to invitations for fixed price sealed bids for steam generators and a prototype main coolant valve for a pressurized water reactor, bids varied about 500 per cent between extremes. In view of the uncertainty with respect to this conventional equipment, it is only to be expected that cost estimates on experimental items such as core fabrication are extremely difficult. Against this background of uncertainty, equipment manufacturers are being asked to quote fixed prices on atomic power plants. At this stage it appears more reasonable to include escalation clauses covering at least some of the more experimental equipment and providing for such contingencies as requirements of governmental authorities and adjustment for technological improvements.

ANOTHER set of unusual problems is presented by the necessity for obtaining licenses under the 1954 Atomic Energy Act. This problem has already been ably dealt with by Messrs. Price and Upton in their remarks this morning and is one which merits considerable study and probably conferences and collaboration with representatives of the Atomic Energy Commission. It is only to be expected that the administrative regulation of the Atomic Energy Act will develop gradually as both industry and government acquire greater experience with the problems posed by private utilization of nuclear energy. Therefore, it is to be hoped that the first licensing regulations will not be considered definitive but will be subjected to continuing review and amendment. Many serious problems were unresolved in the initial draft of basic regulations announced last April. For

example, although the act and the regulations require a license for certain specifically enumerated functions, including the manufacture, production, transfer, possession, and use of a production or utilization facility, and although the regulations provide that an applicant for licenses may combine in one his several applications for different kinds of licenses, the legal position of one who manufactures a production or utilization facility and sells it to a customer who will use it is not clear. If it is the administrative interpretation of the act that the customer may obtain licenses covering all functions from manufacture through to use of the facility, thereby making it unnecessary for the manufacturer to acquire a license in his own name, such interpretation should be made explicit.

STILL another potentially crucial problem is the relationship between a construction permit and an ultimate license. If different or more stringent criteria are to be applied in considering the grant of a license than in the grant of a construction permit, the equipment manufacturer may be confronted with the situation of having made substantial investment on the basis of a construction permit and having his product unsalable because of the failure to obtain a license.

Even a brief recital of illustrations or problems confronting the atomic energy industry leads one to conclude that any self-centered approach by any component of the industry or government could be fatal to American development of atomic energy. Because the challenge is so great and the opportunities so inviting, it is in both the public and private interest that these problems continue to be met in a spirit of co-operation and mutual understanding on the part of the legislative and administrative arms of government and all branches of the atomic energy industry, which include the equipment manufacturers and their customers. Since the congressional Joint Committee on Atomic Energy and the Atomic Energy Commission have manifested continued willingness to meet with industry, thereby making it possible to sit down with government with a view to working out the legal, technical, and economic problems of the private development of atomic energy, it is incumbent upon industry to respond to this invitation.



## Atomic Energy—Its International Aspects

By OSCAR M. RUEBHAUSEN\*

**H**ISTORIANS may say that the atomic age dawned on December 2, 1942, when the first nuclear chain reaction was successfully controlled. From the international point of view, however, 1955 marks the real beginning of the atomic era.

We are now in the first full year of operation under the Atomic Energy Act of 1954. This new law for the first time makes possible not only aggressive industrial participation in atomic energy but also broad-scale international co-operation in atomic matters and a more realistic view of atomic secrecy.

Nineteen fifty-five is the year that private industrial groups for the first time proposed to build atomic power plants entirely with their own funds. It is also the year in which the first commercial order is reported to have been placed with an American firm for the export of a nuclear power reactor.

Further—1955 is the year of the bilateral agreements. There are already twenty-seven such agreements providing for international co-operation between the United States and other nations in atomic research and development. Three of these agreements, moreover, provide for international co-operation in the field of atomic power.

**I**T was in 1955 also that President Eisenhower first offered research reactors to the people of the free nations who can use them effectively for peaceful atomic progress, and pledged the United States to contribute one-half of their cost. One such reactor has already been sold to Switzerland.

Most important, however, 1955 is the year of the United Nations International Conference on the Peaceful Uses of Atomic Energy. This recent conference at Geneva was the first world-wide gathering of the atomic community in more than sixteen years. While it was primarily a scientists' conference, the drama and significance of the events that

unfolded on the shores of Lake Geneva lured men from industry, the professions, and government from nearly all parts of the world.

The year 1955 therefore marks, for the United States, the end of a 16-year period of atomic isolation, atomic nationalism, and atomic secrecy.

It is interesting to recall that less than a year ago it was still the law of the land that "there shall be no exchange of information with other nations with respect to the use of atomic energy for industrial purposes." Thus did the language of the McMahon Act isolate America from the rest of the world on the peaceful, industrial uses of atomic energy. Not only were we isolated but the atom was nationalized: for less than a year ago our government was compelled by law to be the exclusive owner of virtually all atomic facilities and fuels; and atomic information was tightly held behind a curtain of secrecy.

**W**ITHOUT a change in our controlling atomic law there would have been no private industrial atomic power program, there would have been no bilateral agreements, no international co-operation, and no markets for American exports in the atomic field. There would, moreover, have been no United Nations Atomic Conference.

The Atomic Energy Act of 1954 led the way to a wholesome reversal of our national policy. We are now just beginning to enjoy the fruits of the new approach. We have come a long way in a short time.

The first international conference on the peaceful uses of atomic energy closed just three days ago.

It is already clear that the world is no longer the same.

For one reason, the peoples of the other nations of the world are at last becoming persuaded that American atomic aims are not limited to military weapons and destruction. Our friends in foreign lands are beginning to believe that we are truly interested in the development of atomic energy for the general welfare—a welfare which includes them and their families as well as ourselves. This is an international political achievement of major significance for our

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country and for the peace of the world.

For another thing, scientists have now been exchanging information and discussing atomic matters across international boundaries to an extent unequaled in more than sixteen years. While there has been some inhibition in the give and take at Geneva, and a good many barriers of language and inertia have had to be overcome, the interchange among the scientists was substantial, it was friendly and it was productive. The atom is at last being restored to its rightful place as an international science.

**M**OST Americans like to forget that atomic energy was an international, not an American, achievement. We drew, and we continue to draw, upon the genius, skill, and talent of other countries. Our atomic progress would not have been possible without the contributions of Einstein, Hahn, and Meitner, among others, in Germany; of Becquerel and the Curies in France; of Rutherford, Cockcroft, and Walton in England; of Bohr of Denmark; and the inspired genius of Fermi of Italy.

The United Nations Atomic Conference has made possible a renewed international scientific assault on the frontiers of atomic knowledge. For the first time in nearly two decades the world will now be able to unite its resources of scientific talent in the quest for progress. The consequences for science and for the welfare of our own and future generations are exciting to contemplate.

A third important characteristic of the post-Geneva world is the realization that atomic knowledge and atomic progress are world-wide. We have known for some time that at least three nations have successful weapons programs in the atomic field. What we did not know, however, was the extent of the peaceful atomic achievement by other countries.

There is no question but that the United States still leads the world in the breadth, the resourcefulness, and the caliber of its development of the peaceful aspects of atomic energy. But Soviet Russia is a closer second than the world had appreciated. The Soviet work has high quality, technical sophistication, and resourcefulness in its approaches. The world cannot duck the fact that Soviet Russia operated the first atomic power plant as part of an electric distributing system. The

plant was a small one, with only 5,000 kilowatts of electric power—but it was still the first.

**I**T also now appears that Soviet Russia may have in operation the first 100,000-kilowatt atomic power plant. Similarly, it is now believed that Russia has more material-testing reactors in operation than any other nation in the world, including ourselves. Russian progress in atomic technology has been considerable, and there is every evidence that it will continue to be so in the future.

Although England, Belgium, Canada, France, and other countries have not advanced as broadly or as far as either Soviet Russia or the United States, all of them have ambitious programs under way to harness the peaceful uses of atomic energy. One cannot visit the laboratories at Harwell in England, Saclay in France, or Moltencroft in Belgium without sensing the pride, the eagerness, and the confidence with which these nations are mastering the atomic science and contributing to atomic knowledge.

Whether we like it or not, it is a fact that nature is revealing its atomic secrets to those who are competent to seek them—and the necessary competence is widely available throughout the world. Nature does not distinguish between political boundaries. Whether we like it or not, strong programs and impressive achievements in atomic energy by many countries will be the fact in the next decade.

We cannot prevent atomic progress in other nations. What we can do, however, is enjoy some of the benefits of that progress by making such nations our collaborators and our customers. The awareness of these facts is one of the important contributions of the Geneva Conference.

**F**INALLY, the Geneva Conference has underlined the fact that the international market for atomic facilities, whether for power, for research, or for the industrial uses of radiation is a market of enormous potential.

Let us take power, as an illustration: It is clear that atomic energy is already economic and practical as a source of electric power in many areas of the world, even if it is not yet economic in countries, such as our own, which are more favorably situated in

conventional fuels. The people of these areas are impatient for the atomic power which will enable them to lift or expand their standard of living and their industrial progress. This impatience explains to a large extent the heavy concentration by both Soviet Russia and the United Kingdom on the speedy development of atomic power.

As Sir Edwin Plowden, chairman of the British Atomic Energy Authority, has said in explaining the push being given in Britain to atomic power development: "It is not that we are any cleverer than you, it is simply that we are hungrier." This hunger for power is not confined to the industrialized countries where the need for electricity is outrunning the supply of efficient and economic fossil fuels. It is a hunger also in the underdeveloped nations where the costs of conventional power have always been high but where the immediate needs for electricity are small. Reactors have already been designed which are practical, today, as power sources in such countries. One such reactor was described in detail by American scientists at the Geneva Conference.

In Europe there is a keen awareness of these important commercial markets which exist not only for atomic power facilities but for the large and complex family of instruments and supplies required by atomic technology and by the industrial, medical, and agricultural uses of radiation. It is fair to say that the interest in commercial atomic markets is intense. The British are particularly determined to capture their full share of the international atomic market. They have a number of advantages on their side. One advantage is their location and their established pattern of political and trading relationships. By no means insignificant, however, is the fact that they have a commercial rather than a military attitude toward atomic secrecy. They also have an atomic energy law which is potentially more favorable than our own to industrial development and to atomic exports.

**G**ERMANY, also, with its genius not only for theoretical science but for engineering and instrumentation will be a large factor in the international commercial development of atomic energy. The Germans are starting from scratch today, but they are rising to the challenge with boundless energy and a con-

fidence in their capacity to make a significant contribution to peaceful atomic development.

It is safe to predict that the months ahead will see a tremendous world push both for new atomic knowledge and for new atomic markets. In this push the United States is not without advantages. At the moment we have superior know-how and the acknowledged position as the world's leader in atomic technology. Of immediate significance also is the President's offer to contribute half the cost of research reactors to the peoples of those nations which are qualified to make contributions to peaceful atomic progress. This offer by the President, if accepted, will create an immediate market for American suppliers. Thus American industry can have a tremendous initial advantage in the race for the world market if existing legal restrictions are not allowed to hold it back.

**I** HAVE mentioned only four aspects of the recent conference which seem to me to be particularly significant. There are, I am sure, many others. In fact, it may well be some considerable time before the full momentum of the Geneva Conference can accurately be assessed.

One thing is, I think, clear—the policies, the laws, and the attitudes which sufficed for the pre-Geneva world are not necessarily adequate today. There should, therefore, be a prompt and careful re-examination of our national posture and policies on atomic matters.

In the Atomic Energy Act of 1954 the Congress anticipated the dynamic nature of the atomic energy industry. It called upon its own Joint Committee on Atomic Energy to "make continuing studies . . . of problems relating to the development, use, and control of atomic energy." The Congress, further, specifically directed that "during the first sixty days of each session . . . the Joint Committee . . . conduct hearings for the purpose" of keeping abreast of these matters. The Joint Committee needs no reminder of these responsibilities for it is alert in discharging them. Twelve of the eighteen members of the Joint Committee were present during the Geneva Conference and convened in Geneva to evaluate the significance of the conference and its impact upon American law and policy.

Although it is too soon to say with precision what changes should be made in our

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controlling atomic policies and legislation, some changes are essential. These are matters of vital interest to lawyers and to their clients. They are deserving of the closest of scrutiny.

At least two principles seem to me to emerge with special validity in the post-Geneva world.

*First:* We cannot afford to isolate ourselves from either the peaceful atomic achievements or the atomic markets or the atomic needs of the rest of the world. Both our immediate and our long-range self-interest call upon us to join with our like-minded friends throughout the world in a major effort to harness the atom in the service of the peaceful aspirations which are common to all men in all countries.

*Second:* We must make certain that our atomic policies and legislation permit the maximum possible atomic progress at home. It is neither in the national interest, nor in the interest of a free and peaceful world, to surround the atomic activities of American science and industry either at home or abroad with legal and procedural restrictions which are not clearly required by considerations either of health and safety or of military security. There is always a risk that policies and procedures will be perpetuated after the facts which warranted them have ceased to exist.

If America means business, therefore, in developing the peaceful uses of atomic energy at home and abroad, then we must affirmatively reconsider what steps are necessary to reframe American atomic policy in the light of the post-Geneva world. These are among the questions that I would ask:

1. Should we not speed up and simplify our program of bilateral agreements?

2. Shouldn't all of these bilateral agreements be expanded promptly to include power reactors and power technology?

3. Isn't it imperative that all information on reactor technology—except for the specific military adaptations of such technology—be promptly declassified?

4. Shouldn't we remove the existing legal impediments to international atomic relationships when neither secret data nor health are involved?

5. In particular, shouldn't the Atomic

Energy Act be amended to permit non-secret commercial activities abroad without AEC authorization in each specific case?

6. Should we not expand our existing programs for the interchange of scientists, engineers, and students in the atomic field and develop the machinery for periodic international atomic conferences of the kind just concluded?

7. What steps can be taken to facilitate the construction of research facilities, including hot laboratories, where they are needed by countries which now lack the basic training and skills which are essential to atomic progress?

8. Can we not supply our scientific and commercial attachés abroad with more and better information on atomic energy developments so that the available knowledge may be put more effectively to work?

9. Isn't it in order to take a fresh look at the licensing system which we have imposed upon the infant atomic industry? Is it necessary? Would fewer licenses serve as well? Would it be preferable to switch to an information and reporting system, coupled with authority in the AEC to enjoin action deemed inimical to national security or hazardous to safety? Wouldn't such a system, comparable to that long successfully followed by the Securities and Exchange Commission, be less restrictive on atomic growth and simpler to administer?

THESE are only a few of the questions that should be asked. It will also be pertinent in any review of our atomic policies to compare the legal labyrinth which surrounds private atomic activity in this country with the relatively simple laws on the books in the United Kingdom, Belgium, and France.

Every facet of atomic activity—whether it be scientific or legal, political or economic, local or international—has received a new impetus and a new significance from the events of 1955. There is a challenge in this to government officials and to the Congress not only to keep abreast of events but to stay ahead of them. There is also a challenge to lawyers. There is much to be done to accommodate atomic energy to the needs and the goals of an orderly and free society. Such a task is well within our competence as lawyers.



## PUBLIC UTILITIES FORTNIGHTLY

### Problems Involved in the Relocation of Utility Facilities Under the National Highway Program

By AUSTIN L. ROBERTS, JR.\*

THE term "relocation" rolls off the tongue rather easily. In fact, it is natural to think that when a highway is built, or moved, or widened, the problem to the utility may be to move a pole, a few wires, or a few sections of pipe.

So, perhaps the best place to start is to discuss the size of the problem which utility companies face in moving their facilities as highway programs build up more and more steam.

A sharply increased highway building program seems certain, and presumably will be implemented in the next session of Congress. I have made an estimate of what utilities are likely to spend—to move their facilities—in the first year of the new program. But, before I give this estimate, let me emphasize two points: First, the highway bills before Congress provide for expenditures, not for one year, but for five, ten, and twelve years; and second, I consider my estimate to be conservative.

Here is the estimate. Utilities—in one year, mind you—will be required to spend some \$42,000,000 without a penny in reimbursement.<sup>1</sup>

Why do I consider this estimate conservative? A study made by the Department of Commerce for the year 1953 shows that utilities spent \$24,000,000 and

that was in a year when the federal budget for highways was only \$550,000,000. That budget is expected to rise sharply and I am basing my estimate on the "Fallon Bill" (HR 7474) which was reported out by the Public Works Committee of the House in the last session of Congress. Another reason for thinking this estimate on the low side is that I have not added anything for the growing complexity of highway construction. The change in highway construction is familiar to all of us; the underpasses, the clover leaves, the traffic circles, the divided highway, multi-lanes, etc. In fact, I shall mention this again, as we discuss in some detail the changes which have taken place in the problems which the utilities face.

If you agree with me that the problem is big in size, we might for a moment consider who bears the brunt of the impact and how crippling the impact may be in some cases. In other words, who is interested?

The first group interested consists of every user of service provided by any utility. Any increase in utility operating costs must be passed on to the consumer in the form of higher rates. Every utility user is therefore interested because he is paying twice for highways if relocation costs are part of the operating expense of utilities; he is paying once in taxes and again in higher utility rates. I shall expand this subject no further, because Mr. Lansdale will discuss the consumer aspect of the problem. I do mention it, however, as no listing of "interested parties" could be made without the consumer leading the list.

A SECOND group tremendously interested is comprised of the managers of utility businesses, and this group includes both privately owned and municipally owned. One of the reasons that these managers are so vitally interested is that the burden does not, by any means, fall equitably.

Why doesn't it fall equitably? This was ably explained by Congressman Machrowicz of Michigan during the debate in the House on the highway bills:

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<sup>1</sup> The total cost of relocating utility facilities as revealed by the study conducted by the Secretary of Commerce for the year 1953 (House Document No. 127) was 2.6 per cent of the total road construction costs (state and federal funds). After reimbursement to utilities under existing state laws and practices there remained relocation costs equal to 1½ per cent of total road construction costs which were borne by the utilities. HR 7474 would appropriate \$725,000,000 during the fiscal year ending June 30, 1957, for the construction of federal-aid primary and secondary roads to be matched by state funds or a total of \$1.45 billion. It would also appropriate \$1.2 billion for construction of the interstate system to be matched 10 per cent by state funds or \$120,000,000. This would provide a total of \$2.77 billion for federal-aid road construction. Applying the same ratio of 1½ per cent to the total cost of the roads of \$2.77 billion indicates a cost to the utilities in relocating facilities of \$41,550,000.

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There are over 27,000 utilities in the United States providing the services of water, electricity, gas, sewers, telephone, telegraph, and local transportation. In an average year only a small portion of these 27,000 utilities—and hence the users of these services—are affected by federal-aid highway. The study conducted by the Secretary of Commerce, pursuant to § 11 of the Federal-Aid Highway Act of 1954, showed that approximately 700 utilities, less than 3 per cent, paid relocation costs of \$24,000,000. Thus, the users of utility services furnished by 700 companies were required to contribute \$24,000,000 to federal-aid highway construction which benefits all of the highway users of the country.

This is a matter we want to correct in this legislation.<sup>2</sup>

In other words, a manager of a utility cannot casually say, "Oh, relocation costs run about two or two and a half per cent of the cost of a highway project." That is the average, but the average is made up of many projects on which there are no relocation costs and of projects on which the cost may run from 10 to 20 per cent of the cost of the highway.

THIS point was clearly made by John A. TenBrook, of the Philadelphia Electric Company, as he testified in behalf of the Edison Electric Institute before the House Public Works Committee. He quoted the facts that in 1953 relocation costs on expressways in urban areas averaged \$38,767 per mile—contrasted with \$511 per mile on some rural highways. Mr. TenBrook stressed that some costs ran much above the average. He gave an example of it costing \$300,000 a mile to move a single 60,000-volt cable line along the route of an expressway in Philadelphia.

The manager of the individual utility operation is interested because he can be hit a crippling blow out of all proportion to the innocent-sounding "2½ per cent."

A third group is composed of the commissioners who fix utility rates—the members of the National Association of Railroad and Utilities Commissioners. Commissioners

have the assignment to allow earnings sufficient to keep the utility financially sound and they have the responsibility, too, of seeing that rates do not exceed the value of the service provided. For example, a state commission might be posed an unsolvable problem in the case of a small utility saddled with enormously heavy "relocation costs." How could the little company raise the capital needed to move its facilities? How could the commission ask the company to charge anything less than the rates needed to support the greatly expanded investment? And, on the other horn of the dilemma, how could the commission authorize rates absurdly out of line with rates existent in other communities in the state?

IT has been said that the problem is of greater concern to the small utility company than it is to the big. Certainly, this is true in that the big company, serving several communities, could expect to get heavy relocation costs in only a few of the communities. The company which serves one community may get no expense, moderate expense, or a tremendously heavy burden which will jeopardize its very existence.

So much, at the moment, for the parties of interest. Let's trace the history of the problem.

One facet of the highway problem was pictured recently by *Life* magazine<sup>3</sup> which used highway No. 1 between Baltimore and Washington as an example. *Life*, with pictures, showed how traffic has increased, how a once safe road became a death trap as traffic demands grew to exceed the capacity of the road. In the example, there was a happy ending with the building of the Baltimore-Washington parkway.

This story told by *Life* is a familiar one to all of us but to better define our problem, I think we might consider some of the other facts about the early days of our highways. Looking at the pictures of highway No. 1 in 1840 you cannot help but realize that in those days it was a roadway and nothing more. There was provision of some sort for vehicular travel. There were no electric nor telephone lines. Neither were there gas lines, nor water lines, nor sewers. Whatever the public needed in services was brought to it—item by item—over the road. These

<sup>2</sup> *Congressional Record*, 84th Congress, 1st Session, p. 10109.

<sup>3</sup> Issue of May 30, 1955.

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were the "good old days," but mighty inconvenient in terms of 1955.

Then things began to get more convenient. The *Life* magazine article points out: "In 1844 wires were strung on poles along the road. On May 24th Samuel F. Morse transmitted his famous message, 'What hath God wrought!' from the Capitol to Baltimore on his new telegraph instrument. That invention helped reduce the need for travel."

It became obvious that it is handier and more economical for John Q. Public to turn a faucet when he wants some water; to turn a knob when he wants gas; to flick a switch for light; and lift a receiver for telephone service. To make these services available, pipes and wires were placed along the public rights of way which historically had brought predecessor services to the public.

It was more than the natural thing to do, I might add. Utilities occupy public rights of way at public demand, at public convenience, and at public economy. The availability of rights of way has allowed the growth and expansion of utility services. In fact, their development, both in scope and in economy, would have been possible in no other way.

This is the background against which grew the various state statutes authorizing utilities to place their facilities in public rights of way. It is ironical to recall that long after the joint use of public rights of way by highways and utilities had been established the states established highway commissions to develop and maintain roads. It is ironical because some highway commissioners today, curiously enough, speak of utilities as being "interlopers" who occupy rights of way by "sufferance."

**T**HE first state to create a highway commission, by the way, was Massachusetts. That was in 1893. But not until after enactment of the Federal-Aid Highway Act of 1916 did all of the states set up highway commissions.

To digress for a moment regarding the assertion that utilities occupy rights of way by "sufferance," I would like to repeat the remarks made by Congressman Scherer of Ohio during the debate in the House:

Now, it is argued that utilities are in the highway right of way by sufferance;

that they pay nothing for the use of the right of way and ought to be grateful for the privilege. Some have inferred that if utilities press their claim for reimbursement in this legislation they might be thrown off the highways. Utilities are in the highways because water, gas, electric, sewerage, and telephone services are as important to the life and very existence of a home—of a community—as are any other commodities that are delivered to the homes of this country over our highways. In fact, particularly in the cities, it would be practically impossible to bring these services to the people except through the street. That is what streets and highways are for.

The fact is that no one pays for the actual use of the public rights of way. This use is free. As an example, the coal company which delivers coal to my home has the free use of the right of way. No one can stop this company. True it is that the coal company along with others by the payment of certain user taxes provides for the improvement of that right of way. That is, they pay for the pavement which is necessary to the operation of the vehicle in order to bring coal to my house.

Now, on the other hand, you may heat your house with gas. The gas company, most likely, is a private company just like the coal company. Both are businesses to make a profit. The gas company, like the coal company, has and should have the free use of the right of way. The coal company, as I have pointed out, helps pay for the pavement which is necessary for the delivery of its product. The gas company pays for its pipe which is its "pavement" for the delivery of its products. If the gas company gets more customers and, as a consequence, must enlarge and replace its pipe, it must pay for it. If in so doing it is necessary to tear up the pavement of the highway it must replace it and bear the costs. Now if the highway becomes inadequate to carry all the coal and other trucks, it must be rebuilt and enlarged. If, in so doing, a gas pipeline must be moved, should not the company be reimbursed for the cost of moving it? It is just as simple as that.<sup>4</sup>

<sup>4</sup> *Congressional Record*, 84th Congress, 1st Session, p. 10107, as corrected, p. 10672, July 30th.

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A WORD more about the statutes authorizing utilities to occupy rights of way. Some of these statutes required the utilities to move or relocate their facilities—at the expense of the utilities. Other of these statutes were silent as to “who paid the cost” but specified that utility plant not obstruct the building or changing of the highway.

In the early days, the courts, in interpreting these statutes held that, under the applications of police power, the states and municipalities could require utilities to remove and replace their facilities to accommodate road improvement.<sup>5</sup>

In any consideration of these state laws and court decisions, these things must be remembered:

1. Roads were largely maintained by local authorities for local people.
2. The cost of the roads were borne locally and taxpayers and utility users were largely the same people, and
3. The improvement of roads by resurfacing and other changes generally made in those days seldom required any substantial change in the size or location of the highway surface. As a result the costs of relocation required to be borne by utilities were comparatively small.

To elaborate Point 3 just a bit. As the state highway commissioners began to administer the public rights of way they required utilities to obtain “permits” to locate their facilities. These permits frequently—sometimes in line with state laws but often when the law was silent—required the util-

ity to move its facilities at its own expense if required to do so by the highway commission. Again it must be remembered that the practice grew up in an era when changes due to road improvement were few and comparatively inexpensive.

If I may violate good organization, as regards putting together a speech, I might say at this point that I consider existing laws not “bad” as regards bad intent when the law was developed, but certainly “bad” in the sense of being out of tune with the times.

As I began today, I gave you some figures which indicate the seriousness of this “plant relocation” problem. Let me mention two things which contribute to the size of the problem. The first needs no amplification; it is the large number of motor vehicles in the United States today, with their normal need for roadways, plus the need for national highways for defense.

The second is the modern concept in which highways are planned and built. Some years ago, for example, a project to improve a highway called for resurfacing—little else, and utility plant was disturbed little if any.

Highway improvement today calls for additional lanes, perhaps a divided highway; access roads; underpasses and overpasses; grades reduced drastically; curves eliminated or made more gradual; traffic circles; clover leaves; etc. This is expensive road building and expensive “plant relocation.” For one thing, much of the relocation is in urban areas where utility concentration is high.

THIS is as good a place as any to make it absolutely plain that I am not opposed to building highways and not opposed to building the kind of highways which will handle the traffic with maximum safety. Quite the reverse. We need highways, but they should be built with money clearly marked “for building highways” and not with money which comes inequitably from utility customers.

These modern roads are no longer a matter primarily of local concern and local expense. Congress, acting under its constitutional powers, is appropriating vast sums of money to build roads for national defense and to aid interstate commerce. These super-roads will connect all major cities, all of the states, and thus create a national network of roads.

<sup>5</sup> For early court decisions establishing this principle see: *Louisville City R. Co. v. City of Louisville* (1871) 71 Ky 415; *Jamaica Pond Aqueduct v. Town of Brookline* (1876) 121 Mass 5; *Kirby v. The Citizens' R. Co.* (1878) 48 Md 168; *In Re Deering* (1883) 93 NY 361; *National Waterworks v. City of Kansas* (1886) 28 Fed 921; *Rockland Water Co. v. City of Rockland* (1891) 93 Me 267; *Stillwater Water Co. v. City of Stillwater* (1892) 50 Minn 498; *Monongahela City v. Monongahela Electric Light Co.* (1892) 12 Pa Ctv Ct 529; *Gas Light & Coke Co. v. Columbus* (1893) 50 Ohio St 65; *Anderson v. Fuller* (1906) 51 Fla 380; *Scranton Gas Co. v. Scranton City* (1906) 214 Pa 586. These cases were decided prior to the creation of any state regulatory commissions with jurisdiction to regulate the rates of public utilities. Under such circumstances rate-making principles whereby total operating expenses were allowed as an element of the rate to the user plus a fixed rate of return were not applicable. (Hearings, HR 4260—84th Congress, 1st Session, p. 947.)



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I mention this to make the point that the burden is not in relation to the benefit. There is no logic in the argument: "Well, we all want good highways. What difference does it make whether we pay for them out of highway funds or out of higher utility rates?"

Let's take a case in which two small utilities serve neighboring towns. One town is a few miles off the route of a new highway; the other town is directly on the route. The utility in the first town has no relocation expense, though its people have virtually the same benefit from the highway as do the people in the second town. In the second town, the utility is asked to move a major share of its plant. Lacking the capital, it must borrow. If it can avoid folding up, it will be long burdened by capitalization out of all proportion to its earnings.

**E**NOUGH about the problem. What has been done to get some relief—to have the costs borne by the service, in this case the highway, which initiates the movement of facilities used by the other services.

The first effort to have Congress recognize the unfair burden to utility operators came in 1952. A number of publicly owned utilities under the leadership of Nashville, Tennessee, Jacksonville, Florida, and others caused bills to be introduced in both the U. S. Senate and House of Representatives. Hearings were held and the Senate Public Works Committee found that there was a serious problem requiring further study. In 1953 the Subcommittee on Roads of the House Public Works Committee in the course of a study of federal-aid highway problems invited utilities to present their views. On July 8, 1953, I appeared as instructed by resolution of the NARUC to present the views of the regulatory agencies. Representatives of publicly and privately owned utilities testified at the hearing in support of a proposal that utilities be reimbursed out of federal funds for costs incurred in relocating facilities to accommodate federal-aid highway projects. At the second session of the 83rd Congress in 1954, Congress passed the Federal-Aid Highway Act of 1954 in which it was provided that the Secretary of Commerce conduct a study of problems posed by relocation of utility facilities. This study was made with the co-operation of the na-

tion's utilities and a report made to Congress in April, 1955.

**D**URING the 84th Congress, this year, I again appeared, as did representatives of the various utilities, before the Public Works committees of both the Senate and House. The Senate committee reported out a bill, S 1048, which was passed by the Senate and is still pending in the House. This bill contains a provision (§ 11) for reimbursement of 50 per cent of utility relocation costs on federal-aid highways in states which do not provide for payment of such costs. In the House, as you undoubtedly know, the Public Works Committee reported out a bill (HR 7474) which also had in it a provision for partial relief of utilities. When this bill was debated on the floor of the House the provision for relief of utilities was stricken by an amendment apparently requested on behalf of, and supported by, spokesmen for state highway commissions. Although a number of the state public utility commissions had sent wires or letters to members of Congress supporting the principle of reimbursement, their arguments were not sufficient to overcome the efforts of the state highway people.

The vote by which this amendment was adopted was 125 to 75. While it is disappointing that the House should have taken this action, it is significant that only 200 members voted out of approximately 415 who were present during the debate on the bill. If there had been a greater concern among the 215 who did not vote, over the possible effect of an increased road-building program on the utility users of their districts, the result might well have been different. I can say, without hesitation, that the attitude of Congress has become increasingly favorable over the past two or three years. Members of the Public Works Committee who were at first indifferent and even adverse have been of increasing assistance as they became informed.

It is probable that a good many members of Congress do not understand why utilities use highway rights of way, or who actually pays the cost of relocation, or any of the reasons why these costs should be treated as are the other costs of highway improvement. That this is true is unfortunately due, I believe, to the failure of many

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utilities to appreciate the scope of the problem and to inform their Congressmen about it. In some instances, particularly in the case of small companies, the utilities themselves are not informed of the threatened impact of the highway program. If utilities would

examine the proposed highway program to determine the effect it will have on utility operations and see to it that other utility operators were similarly informed the problem of uninformed Congressmen should also disappear.

### The Effect upon Municipalities of the National Highway Program

By E. C. YOKLEY\*

I APPRECIATE very much the invitation extended by your capable section chairman, C. Oscar Berry, to be with you on this occasion and discuss with you briefly the effect upon municipalities of the national highway program. There was a time, of course, when the effect of road building on municipalities, as respects their utility facilities, was inconsequential. The same would be true in the experience of other classes of utilities.

This problem did not plague the municipalities in the early days of limited federal participation in highway construction. As the modern, enlarged programs became a reality, however, the municipalities that were called on to relocate their utility facilities to accommodate federal-aid highway construction projects began to feel the pinch. My first contact with the problem began in the early 1940's when I was with the legal department of the city of Nashville. We were faced with the rulings of the Bureau of Public Roads, through its administrative memorandum 300, that would permit reimbursement for utility facilities in those states where the state highway department would make a formal finding of fact that the utilities could not be required to remove their facilities at their own expense under local law. But such findings were rare, and certainly had little or no application in my state. The problem was a very vexing one during my entire tenure with the legal department of the city of

Nashville. When I left the Nashville legal department in 1951, I was employed by the First Suburban Water Utility District of Davidson county, Tennessee, to try to assist it in meeting the demands of the Tennessee State Highway Department that the district relocate its water facilities along a two-mile stretch of U. S. Highway 31A and 41A south of Nashville, a federal-aid project of a widening character, and particularly leading to the Arnold Engineering Development Center south of our city. This matter is still in litigation, though we have removed our facilities at our own expense under a mandatory injunction of the courts.

THEREAFTER in early 1952, accompanied by the representatives of other utility interests affected by this project, we went to Washington and through the good offices of Senator McKellar and Representative Clifford Davis of Tennessee, we were able to secure the introduction of the first legislation ever proposed before the Congress of the United States to reimburse utilities at all levels for the costs of relocating utility facilities in the accommodation of federal-aid highway projects. I have been somewhat wedded to the problem ever since.

The water district I represent holds membership in the National Institute of Municipal Law Officers, and in view of the municipal character and status of our water district, and its problems, I began checking with other municipal legal advisers and found that they were having problems of their own in connection with the relocation of municipally owned facilities. Thus it came about that at the 1952 meeting of the National Institute of Municipal Law Officers, held in Louis-

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ville, Kentucky, a resolution was adopted by this organization, composed of municipal legal advisers, urging the Congress to enact legislation providing that publicly owned utilities be relieved of the costly burden of relocating utility facilities when caused by federal-aid projects. Since this time, through the courtesies of the leadership of this very effective organization, I have been authorized to make numerous appearances before both Senate and House committees on Public Works in support of legislation that would grant some measure of relief to the hard-pressed municipalities.

**I**N the intervening years support for the legislation received great impetus from many utility organizations and while I fear to name any lest some be overlooked, I will state that under the leadership of the National Association of Railroad and Utilities Commissioners, the following organizations spent great time and effort in trying to sell to the Congress the manifest equities involved in granting reimbursement for the relocation of utility facilities at every level; namely, the American Public Power Association, the American Water Works Association, the Tennessee Valley Public Power Association, the Bell system, the electric companies through their associations, the American Gas Association, the transit associations, and innumerable independent companies having common problems. While the battle is far from being won, we did begin to strike pay dirt, so to speak, in the first session of the 84th Congress.

In the 84th Congress we were successful in having incorporated in Senate Bill 1048, known as the Gore Bill, in § 11 thereof, which passed the Senate, provisions authorizing payment of 50 per centum of the cost of relocation of utility facilities necessitated by the construction of projects on the federal primary, secondary, or interstate systems in which federal funds were to participate, which included publicly, privately, and co-operatively owned utilities. There was imposed in § 11 of S 1048 a limitation of 2 per centum of any sum apportioned to any state for any fiscal year. Adequate provision was made for the mechanics for obtaining the reimbursement authorized in the bill.

In HR 7474, in § 7 thereof, there was included a much weaker provision for re-

imbursement, leaving the matter on a permissive level with the states, and it had been hoped that if this bill passed the House, a satisfactory solution might be developed through action of Senate and House conferees. However, when HR 7474 reached the floor of the House, after heated debate, § 7 was stricken from the bill. The same day the House killed all highway legislation for the session. What the future holds will depend in large measure on the manner in which utility interests, at all levels, can continue to sell to Congress, and particularly the House of Representatives, the merits of such legislation.

From the standpoint of the municipalities, grave problems are presented. These problems stem from the accelerated interest of the federal government in highway improvement. The President's Advisory Committee on a National Highway Program, in its January, 1955, report to the President, states unequivocally that a safe and efficient highway network is essential to America's military and civil defense, and to the economy; that the existing system is inadequate for both current and future needs and that it must be improved to meet urgent requirements of a growing population and an expanding economy. Thus it may be seen that the problem attendant upon highway expansion is a national one that is receiving primary attention at the national level. While there was a rather wide divergence of opinion as to how such a program should be financed, as well as the extent of such a program, it is significant that all highway legislation introduced in the first session of the 84th Congress indicated an acceptance of the importance of highway expansion, especially in urban areas, through increased appropriations for highway improvement.

**T**HE step-up in the federal program for highway purposes, as indicated in the legislation proposed in the session of Congress just ended, carries with it the inevitable threat of increased burdens on those municipalities which, under present laws, practices, and regulations, will be called on to pay the full bill for municipal utility relocations.

Municipalities operate water, sewer, electric, and other utility services. These respective utility facilities have been carefully locat-

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ed and are perfectly adequate, and in many instances are relatively new, having been financed initially by bond issues, and they are operated and maintained by current budget allocations. The relocation of these facilities cannot be accomplished without substantial destruction, and in many states the burden of relocating these facilities to accommodate federal-aid highway construction falls squarely on the municipalities without any reimbursement or benefits. The impact of these relocation expenditures is felt at the taxpayer or consumer level in our municipalities.

The average citizen and user of municipal utility services is a heavily taxed individual. He pays income taxes, excise taxes, and automobile gasoline taxes to the federal government. At the state level he pays a very high gasoline tax. He feels that when he does these things he has contributed his fair share of any federal-aid road-building program. The leaders of our municipalities agree with him, and hesitate to impose any additional burden on this taxpayer, especially in connection with road building of a character susceptible to use by travelers from faraway places.

**W**HILE sources of municipal revenue constantly dwindle, demands for various services by the people continue to pile up. In most municipalities it is becoming increasingly difficult to get through any budget year, and many municipalities have reached the danger point in their lawful debt limitation. The huge urban projects being proposed and presently being undertaken, with their divided lanes, clover leaves, underpasses and overpasses are obviously beyond the pale of local improvements. They are national in character and are designed to move traffic at the interstate level and in aid of the national defense.

It is respectfully suggested that such an ambitious program of federal-aid highway construction transcends the scope and the extent of local responsibility. This being true, the federal obligation with respect to the cost of relocating utility facilities should not be made to turn on considerations of local law or contractual obligations or the exercise of police power by the states. We know from past experience that this can only result in a complete lack of uniformity of treatment of the users of utility services and is produc-

tive of much confusion and delay on vitally needed projects. The position taken by those who oppose reimbursement that this problem should be left for handling by the states at the local level is untenable. It is an old argument that is considerably out of step with present-day developments in highway construction.

**T**HE municipalities are not troubled over the questions of contractual rights in and to the use of their streets, by their own utility services. They hold their streets in trust for their people. They recognize that the public needs all the uses of the street or highway, and that in the public interest, and to furnish services more economically, the streets must be utilized for the accommodation of utility facilities.

A particularly aggravating feature of the problem is the fact that while the municipalities of some states receive certain forms of assistance in relocating their utility facilities, municipalities in other states are not so fortunate. The same situation exists regarding other classes of utilities. An examination of the tables appended to the report of the Secretary of Commerce, which was transmitted to the 84th Congress by the President, clearly indicates the truth of this statement. The lack of uniformity in the treatment of the problem while being handled at the state level has created confusion and misunderstanding bordering on chaos.

In the smaller communities the discrimination evident under the present laws and practices is most evident and most severe. I desire to point out to you a particularly inequitable feature. The cost of relocating utility facilities which occurs in any one year is not borne equally by all utilities and the users of their services. This cost is paid by the relatively few utilities which are unfortunate enough to be in the path of the highway improvements which occur in that year. I have a chart here which I used before the Senate and House Public Works committees this year which will help to illustrate what I am trying to say.

This chart shows three towns and I ask you to assume, as is often the case, that the utility services are furnished by the individual cities and private companies serving only the individual towns. The highway passes through town A but does not touch



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towns B and C although their citizens use the highway through access roads. Because the utility services in town A are relocated at great expense, the users of utility services in town A bear that expense. Because the facilities in towns B and C are not disturbed the utility users in B and C are not burdened. Perhaps their time will come next year or five years from now. No utility can plan its budget to provide for these expenses which can be disastrously high because there is no certain way of knowing when the highway department will build a highway through its facilities.

Last year in hearings before the House Committee on Public Works, Mayor William Hartsfield of Atlanta testified that these federal-aid projects can bankrupt some municipalities with the demands made upon them to relocate utility facilities. In directing the preparation of this exhibit, I recalled the statement of Mayor Hartsfield, as I considered the plight of the small utility district I represent, which lies in the area south of the city of Nashville. As in the case of the little community indicated on the exhibit, a federal-aid project extends for two miles through the area in which my client furnishes water to its customers and ratepayers. We have been called upon to relocate our facilities at our own expense, and, under a mandatory injunction of the courts, we have done so. The cost has amounted to \$93,000, which

represents 12.5 per cent of the total investment of this small utility district. I don't know how we will ultimately finance this burden. In whatever manner the relocation of these facilities is financed, payment for a part of this project to accommodate interstate traffic must be borne by our 5,100 local water subscribers. They will not be able to stand it without an increase in rates, and it would not be fair if they could. In other words, our ratepayers are called on to subsidize a heavy portion of a road-widening project leading to Atlanta and furnishing necessary access to the Arnold Engineering Development Center, a highly important testing laboratory under the supervision of the Department of Defense. Surely this is a non-local project. This illustration, so close to home that it hurts, is given to you solely because it is illustrative of a situation which exists in many, many states.

**I** AGAIN express my pleasure for the invitation to be with you here today. This splendid section, which contributes so much to the success of the American Bar Association, is to be commended for allocating an entire session of your meeting for the discussion of the highly important problem of utility facility relocation reimbursement. The enormity of the problem, in the light of present federal highway development, can no longer be ignored.

### Should Consumers Pay the Cost of Relocating Utility Facilities?

By JOHN LANSDALE, JR.\*

**T**HERE are some who might contend that the question assigned to me for discussion is loaded and assumes the answer to the most important part of the problem. That is to say—when utility facilities must be relocated on account of a highway development and paid for by the utility, do the consumers really pay for it. Frank C. Balfour of California, chairman of the committee on right of way of the American Association of State Highway Officials and

one of the advocates of the view that the utilities should pay all relocation costs, took the position in his statement on May 10th of this year before the House of Representatives, Public Works Committee, that, at least with respect to privately owned utilities, this was an open question. The minority report of the committee accepted his views with emotional reference to the prosperous condition of utilities.

It is evident that the emotional feeling that nonproductive expenses of all kinds can be loaded on utilities without cost to the consumer is to a large degree

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responsible for the success which highway officials have heretofore had in preventing the enactment by Congress of the legislation with respect to utility relocation in highways which equity and good conscience require.

EVERY definition I have seen of the elements which must be given consideration in determining the amount of the accrual for depreciation requires the inclusion of an amount sufficient to cover the cost of retirements resulting from the demands of public authority. For example, the NARUC definition of depreciation includes the following:

Among the causes to be given consideration [in determining the accrual for depreciation] are . . . requirements of public authorities.

Unless appropriate federal legislation is enacted, it is perfectly plain that utilities and regulatory authorities, at least in urban areas, will have to give increasing attention to the accrual of depreciation to cover uncompensated premature retirements for the benefit of persons other than the utility consumers. This is entirely apart from the heavy new investment required for relocation and the consequent nonproductive increase in the rate base of the utility involved. There may have been a time when regulation was so loose and the type of rate base so generous that no effect upon consumers could be found.

I need not labor the point with this audience that, with few exceptions, regulation today is so stringent and the margin of profit allowed so narrow that any appreciable increase in expense or nonproductive capital investment will have a very real effect upon rates. General counsel for the NARUC very effectively pointed this out to the Senate Committee on Public Works at the hearings this year on federal-aid highway legislation. It is a curious fact that in the days when conditions existed which gave some validity to the emotional feeling that expenses of the kind we are talking about could with impunity be loaded on utilities, the problem was relatively unimportant.

Under present federal legislation and the regulations pursuant thereto, it is clear that the right of a utility to reimbursement

for relocation of its facilities required by federally aided highway improvements rests on state law. Regulations of the Bureau of Public Roads, Department of Commerce, Chap 1, Part 1, § 1.11 (j).

So far as we know, it is everywhere held, in the absence of statute, that where utility facilities are located in a public way and a relocation of those facilities is necessitated by a lawful change in the public way by the governmental agency having control of it and for a governmental purpose relating to the public way, they must be relocated at the expense of the utility involved. The rule is of ancient origin and applied in England as well as the United States. It is difficult to put the finger on any exact basis for the rule but it appears to rest on the proposition that a right of way is given to the utility free of charge for so long as the utility use does not unduly burden or interfere with the primary purpose for which the public way was provided.

It seems to be applied whatever the franchise situation may be and for stated reasons varying with the particular case. In any event it is clear that, by and large, the use by the utilities of the public streets and highways is thought to be secondary and subservient to the primary purpose for which they were designed. The case of *Gas Light & Coke Co. v. Columbus* (1893) 50 Ohio St 65, is illustrative of the orthodox approach to the matter. In that case the city changed the grade of a street which required the relocation of the company's gas main at the expense of \$406.60 which it sought to recover from the city. After acknowledging the company's right to use the street with the city's consent, which had been had, the court said at page 70:

. . . An ordinance to grant an exclusive right, or a perpetual right to occupy a particular part of the street, would be an attempt to bind succeeding councils as to their exercise of legislative power, and would, for reasons stated, be ineffectual. The grant by the city must be interpreted in the light of the right and duty of the city to regrade, whenever in its judgment, the public interest demands, and whatever easement the gas company can receive, it must accept and enjoy in common with equivalent rights, which have been or may

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be acquired by other public agencies, rights of a like secondary character, and all must give way to the paramount duty of the city to care for the streets and keep them open, in repair, and convenient for the general public. This duty would be seriously interfered with if the city could not change the grade of its streets, save upon the condition that it should make compensation to every gas company, and water company, and telephone company, and electric light company, and street railway company, for inconvenience and expense thereby occasioned. All such agencies must be held to take their grants from the city upon the condition, implied where not expressed, that the city reserves the full and unconditional power to make any reasonable change of grade, or other improvement, in its streets.

It will be noted that the requirement of the utility to move at its own expense was correlated with the extent of the city's duty to exercise governmental powers with respect to the street which it could not impair by contract. Appealing argument may be made that the use of public highways for the transportation of electric energy, gas, water, or messages is a part of the primary purpose for which the public way exists; that is to say, transportation. John A. Ten-Brook, assistant development engineer of the Philadelphia Electric Company, appearing on behalf of the Edison Electric Institute before the Subcommittee on Roads of the Senate Public Works Committee in April of this year, very effectively presented this point of view. I know of no instance, however, where any tribunal has been persuaded to make this approach, although I know of at least one case in which it was argued. Had this problem been as acute and as important to individual utilities and their consumers in the period when our common law rules relative to highways were being developed as it is now an entirely different body of law might exist.

In the absence of special circumstances it appears to be almost everywhere the law that the right to require relocation within the street at the expense of the utility is limited by the extent of the governmental power of the controlling local authority with respect to streets and highways as such. However,

the power to require relocation relates to relocation within the street and does not normally extend to removal from the street. Thus, the right to occupy the street itself is a property right so long as the right exists. For a substantial or complete deprivation of such right the utility is entitled to compensation, *Hamilton, Glendale & Cincinnati Traction Co. v. Hamilton & Lindenwald Transit Co.* (1904) 69 Ohio St 402; *In Re Gillen Place* (1952) 304 NY 215, 106 NE2d 897. The right of the city or the state to require relocation without compensation even within the highway is limited to action in pursuit of its governmental functions. The leading case on this is *Los Angeles v. Los Angeles Gas & E. Corp.* (1919) 251 US 32, where it was held that the city of Los Angeles could not require, without compensation, relocation of the company's facilities in the streets to accommodate a competitive municipal electric system owned in a proprietary capacity even though it might have, in the exercise of its police and reserved powers, required such relocation.

This is the law in California, *Postal Telegraph-Cable Co. v. San Francisco* (Cal App 1921) 199 Pac 1108 (municipal railway); in Wisconsin, *Milwaukee Electric R. & Light Co. v. Milwaukee* (1932) 209 Wis 556, 245 NW 856 (city water main); in New York, *New York v. New York Teleph. Co.* (1938) 278 NY 9, 14 NE2d 831 (municipal subway); and Ohio, *State ex rel. Speeth v. Carney* (1955) 163 Ohio St 159, 126 NE2d 449 (county subway). In all of these cases the decision turned upon the fact that the governmental agency was acting in its proprietary capacity rather than its governmental capacity. This rule has been applied in Ohio even where the relocation is required indirectly to accommodate a governmental purpose relating to the highway, *Cincinnati v. Cincinnati & S. Bell Teleph. Co.* (1930) 123 Ohio St 174, in which a street railway was directed to relocate its tracks, in order to accommodate a street widening and improvement program, to a place which conflicted with a telephone conduit.

Where the concept of governmental function is broader than that applied in the preceding cases the practical result is different but the same basic principles appear to be applied. *New Orleans Gas Light Co. v.*

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Drainage Commission of New Orleans (1905) 197 US 453, where gas pipes were relocated at the utility's expense to accommodate drainage works because New Orleans was exercising its police power for "legitimate purposes in the interest of public health and safety."

**I**N *Philadelphia Electric Co. v. City of Philadelphia* (1930) 301 Pa 291, 152 Atl 23, appeal dismissed 283 US 786, the electric company had to accommodate itself to the municipal subway. However, it had accepted a franchise grant requiring it to relocate at its own expense to accommodate "any municipal work." The court did intimate in its opinion that even in the absence of contract, the city could have ordered relocation pursuant to its police power. See also *Bell Teleph. Co. v. Pennsylvania Pub. Utility Commission* (Pa Super Ct 1940) 139 Pa Super Ct 529, 12 A2d 479, and *In Re Delaware Joint Commission* (1941) 342 Pa 119, 19 A2d 278, where relocations at the expense of the utility were required on the ground that street improvements were involved but under conditions that might, in some states, have led to a different result. But even in Pennsylvania the utility will be reimbursed if the governmental unit is clearly acting in a proprietary capacity. *Postal Telegraph Co. v. Pub. Utility Commission* (Pa Super Ct 1944) 53 PUR NS 76, 154 Pa Super Ct 340, 35 A2d 535 (airport). The law in Georgia appears to be similar to that in Pennsylvania. *City of Macon v. Southern Bell Teleph. & Teleg. Co.* (1953) 89 Ga App 252, 79 SE2d 265, which required relocation without compensation to accommodate the extension of a municipally owned hospital said to be a governmental function.

New Jersey appears to follow Pennsylvania. *New Jersey Bell Teleph. Co. v. Delaware River Joint Commission* (1940) 125 NJL 235, 15 A2d 221, which seems to rest on the proposition that no taking was involved, even though relocation was required, on the ground that the company still had its franchises and right to occupy the highway.

In *Peoples Gas Light & Coke Co. v. City of Chicago* (1952) 413 Ill 457, 109 NE2d 777, a utility was refused reimbursement for relocation costs in connection with the construction of the subway on the ground that

the provision of subsurface transportation was a proper street use and a governmental purpose.

Massachusetts seems to constitute a clear exception to the general law. Utilities are not entitled to compensation even on vacation of a street to make way for the construction of a terminal system for the subway on the ground that they have merely a revocable license in the street. *New England Teleph. & Teleg. Co. v. Boston Terminal Co.* (1903) 182 Mass 397, 65 NE 835; *Boston Electric Light Co. v. Boston Terminal Co.* (1904) 184 Mass 566, 69 NE 346.

**T**HE general rule to be drawn out of the foregoing, subject to the exceptions noted, seems to me as follows: That where a utility occupies a public way, it may be required to relocate in that public way at its own expense when such relocation is necessary in connection with the improvement and maintenance of the highway as such. The same rule appears to be followed with respect to the maintenance and improvement of those "highways" over which the United States is given primary jurisdiction; *i.e.*, the navigable waters of the United States. *United States v. Chandler-Dunbar Water Power Co.* (1913) 229 US 53; *United States v. Chicago, M. St. P. & P. R. Co.* (1941) 312 US 592. I will not hazard a guess as to whether the same result would have followed if the United States, pursuant of its power to establish post roads, had built a system of federally maintained and controlled highways. It is clear, however, that the federal government must compensate utilities for a taking or required removal where it is acting for a purpose not relating to the street or highway in which the facilities are located as such. *United States v. Brooklyn Union Gas Co.* (CA2d 1948) 168 F2d 391. This applies also to the taking of the streets or highways of a municipality or a state providing relocation is required. *United States v. City of New York* (CA 2d 1948) 168 F2d 387; see annotation 160 ALR 955. Some attempt has been made, without success, to secure reimbursement for federal-aid highway relocations upon the ground that the state is acting as a mere agency of the federal government and cannot use its police power to further a federal project. *Southern Bell*



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Teleph. & Teleg. Co. v. Commonwealth (Ky Ct App 1954) 266 SW2d 308.

**O**BVIOUSLY, little comfort can be derived from existing case law nor can there be any reasonable expectation of relief by judicial decision. I have briefly reviewed the cases, however, to illustrate my view that the body of law which now results in the imposition of heavy relocation burdens on utilities is wholly archaic in the context of modern highway construction and requires legislation.

A substantial body of opinion is accumulating that justice and good conscience require legislation to take some or all of the burden of relocation off of the shoulders of utility consumers. In 1954 Congress refused to enact such legislation but required a study of the matter by the Secretary of Commerce. Federal-Aid Highway Act of 1954, § 11 (Chap 181, Public Law 350). The committee report relative to this section of the act (page 2174, Volume 2, USC, *Congressional and Administrative News*) stated as follows:

The data presented at the hearing seemed to show that some inequity does exist in the assessment of utility relocation cost under the present conditions. The testimony does not indicate, however, what, if any, responsibility might be attributed to the federal government for this situation. On the contrary, it appears that such inequities as may exist arise largely because of the relationships between the utilities and the state and local governments which own or control the highway rights of ways.

**W**ITH respect to the Federal-Aid Act of 1955, the Senate inserted a provision permitting reimbursement for utility relocation from federal funds up to 50 per cent of such costs. The report of the Senate Committee on Public Works, Report No. 350, reviewed the various contentions made before it, alluded to the study made by the Secretary of Commerce pursuant to the act of 1954, and stated:

The committee recognizes some merit in the claims of the utility companies, and the inequity that exists in the assessment of utility relocation costs under present conditions. It appears that such inequities

as may exist arise largely because of the relationships between the utilities and the state and local governments which own or control the highway rights of way. . . .

The committee feels that there is some justification for reimbursing utilities for a portion of their cost of relocation in states where under the laws of practices of the state in which the project is being constructed, the entire relocation cost is required to be borne by the utility. It is recommended that 50 per cent of such costs may be paid from federal funds, provided that no more than 2 per cent of all sums apportioned to any state for any fiscal year for expenditure under the federal-aid systems may be expended for such purposes. . . .

It is the intent of the committee that these provisions shall apply to any concern engaged in the utility business, without regard to the form of its organization, and whether publicly, privately, or co-operatively owned. It is the further intent that these provisions shall not limit the right of utilities to receive reimbursement for relocation costs in those states which by law or by practice already provide for such reimbursement.

**I**N addition to the representatives of utilities that appeared before the committee to urge this action, the National Association of Railroad and Utilities Commissioners appeared and urged that provision be made for reimbursement.

These principles have received almost universal recognition in modern legislation with reference to special types of highway improvements. For example, almost all of the statutes authorizing toll roads (16 out of 23) specifically require the toll-road authority to bear the cost of utility relocation. I have not collected the statutes relating to transportation facilities of other kinds but in many instances such provisions have been included.

For example, Ohio Revised Code, §307.201, relating to construction of subways requires reimbursement. Expressway construction in California, Connecticut, and New Jersey provides reimbursement of utilities for some or all relocation expense. In England, the Public Utilities Street Works Act of 1950 requires reimbursement

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of utilities for relocations. The law in England on this subject is reviewed in CXIX *Justice of the Peace and Local Government Review* 331 (issues for May 21 and 28, 1955).

The opposition to federal legislation for reimbursement appears to come mainly from state highway officials. This seems to be generated largely by an effort to eliminate any consideration which will cut down the amount of funds available for highway construction. Applied on a statewide or nationwide basis, this does not appear to be a valid objection. For example, with respect to the Ohio turnpike which is 241 miles long and passes through a very populous section of Ohio, the cost of utility relocation (exclusive of railroad relocations) has to date amounted to approximately one per cent of the total cost of the highway. However, approximately two-thirds of this cost relates to relocations which probably would have been reimbursed, at least in substantial part, under Ohio law without specific legislation.

FIGURES relating to completely new highways resulting in relocations only at crossings are not, however, representative of the problem with relation to federal-aid highways which deal to a very large extent with changes in existing highway systems.

Table 21 of the report of the Secretary of Commerce pursuant to § 11 of the Federal-Aid Highway Act of 1954 shows that relocation costs of utilities on federal-aid primary and secondary highways for the year 1953 amounted to approximately 2.8 per cent of the total investment. The amount subject to reimbursement, however, was only .51 per cent.

This indicates that the total cost of relocation even with respect to federal-aid highways might be regarded, percentagewise, as of no enormous significance. The primary problem arises, however, from the unequal distribution of costs, both as between various areas and as between utilities. This same report reveals that in urban areas expressways impose an average utility relocation cost of \$38,700 per mile or 3.6 per cent of cost and divided highways \$17,500, which is 5 per cent of costs per mile as contrasted with only \$4,600 or 3.2 per cent of cost for all other highways. In the rural areas those figures become \$3,800, \$2,500, and \$500 per

mile and average only 1.48 per cent of cost. Even these apparently very high costs for urban areas, however, do not reveal the entire story. Thus, Mr. TenBrook in his testimony before the Senate committee pointed out that the location of an expressway over and along existing streets and parkways for a distance of two miles in Philadelphia resulted in a relocation cost of over \$300,000 per mile for a single 66,000-volt cable line. Leonard B. Richards in the hearings on the 1954 bill reported the case of the small gas company that was required to expend a sum equal to about 11 per cent of its fixed capital to relocate facilities on a federal-aid highway project. Edward T. Gingnoux, in the 1952 hearings, reported the case of a water company in Maine with 630 customers and gross annual revenues of \$30,000 which had to pay \$15,000 to relocate its facilities on a federal-aid highway, and Mr. Oakley, in the 1954 hearings, reported the example of a water utility in Tennessee which incurred relocation costs in excess of 12 per cent of its total investments.

IN 1953 utilities invested nearly \$30,000,000 in unreimbursed relocations within highway rights of way. Eighty-nine and five-tenths per cent of it was in federal-aid highway. The dollars involved in the future will be many times this amount. The significant thing is that all of this investment, so far as the utilities and their customers are concerned, is completely nonproductive. It has long been a basic concept in our law that assessments for public improvements laid upon particular property owners are valid only if some particular benefit is involved. For example, in *Nashville, C. & St. L. Railway v. Walter* (1935) 294 US 405, 11 PUR NS 493, 79 Led 949, the Supreme Court of United States reversed the supreme court of Tennessee for refusing to require the admission of testimony designed to show that in the particular case the imposition upon a railroad of the whole cost of eliminating a grade crossing was arbitrary and unreasonable, although it had been conceded by the railway that in a proper case the state could in the exercise of its police power impose on a railroad the whole cost of eliminating a grade crossing. The court stated as follows:

It is true that the police power embraces

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regulations designed to promote public convenience or the general welfare, and not merely those in the interests of the public health, safety, and morals. . . . And it was stipulated that "in the light of modern motor vehicle and the traffic, anything which slows that traffic is an inconvenience. In other words, eliminating a grade crossing, as in the case at bar, facilitates the speed of motor vehicular traffic, in accordance with public demands." But when particular individuals are singled out to bear the cost of advancing the public convenience, that imposition must bear some reasonable relation to the evils to be eradicated or the advantages to be secured. . . . While moneys raised by general taxation may constitutionally be applied to purposes from which the individuals taxed receive no benefit; and, indeed, suffer serious detriment . . . so-called assessment for public improvements laid upon particular property owners are ordinarily constitutional only if based on benefits received by them. . . .

THE problem presented by utility relocation on federal-aid highways is an entirely different kind of problem than that involving relocations by reason of the exercise of governmental powers by local governmental units in the circumstances and conditions in which existing rules of law were formulated. The requirement that the utility bear the cost of relocation might once have been a valid *quid quo* for the acquisition by the utility of a free right of way. The rule is grounded upon the duty of local governments to their inhabitants. The same group for whose benefit the utilities use the streets and highways. In the Nashville Case, *supra*, one of the principal grounds of decision was that the separation in grade at the railway crossing in question was not designated to meet local needs but "as a link in a nation-wide system of highways." Moreover, the improvements for the accommodation of which relocation of facilities was required were usually local in character and generally speaking inured to the benefit of the same

general segment of the population as those who were the customers of the utility. Thus, from an economic standpoint, it may have been true at one time that there was little difference between the payment of these costs by the people through general taxation or the payment of them through their utility bills.

THE fact that an entirely different situation is presented today is strikingly illustrated by the report of the Secretary of Commerce, previously referred to, which shows that 85 per cent of all of the utility relocations in the country (reimbursed or not) required by highway improvement were on federal-aid highways. The whole basis of federal highway aid is the benefit derived therefrom by the nation at large from the standpoint of national defense and encouragement of interstate commerce and travel. Just last week an editorial in one of the Cleveland papers commented on the necessity of state aid to a county near Cleveland to relieve its "monumental traffic problem" which has little, if any, relationship to any local condition. Yet, in the absence of legislation, a substantial part of the cost of relieving that condition will be locally assessed through utility bills. The fact that the major relocation costs are concentrated in the urban areas emphasizes the inequity of assessing so large a part of a burden on a small locality.

These extremely expensive improvements in urban areas are an integral part of state and interstate improvements.

One point should not be overlooked. Some engineers believe that by and large relocation costs tend to be small where they must be reimbursed. All of these costs must be borne ultimately by the public. It is possible that placing responsibility for costs upon those who do the planning will result in an over-all reduction in costs.

The problem briefly discussed here again emphasizes the necessity of making the general public appreciate the fact that it and it alone ultimately pays for all nonproductive utility investment.

## APPENDIX

### Competitive Rate Making under the Interstate Commerce Act

By JERVIS LANGDON, JR.\*

**L**AST spring a special Cabinet committee appointed by the President released a report which dealt with certain problems in the field of transportation and made some important recommendations for legislation.<sup>1</sup> These recommendations are now pending before the Congress in the form of proposed amendments to the Interstate Commerce Act, and the first hearing is presently scheduled before a subcommittee of the House Committee on Interstate and Foreign Commerce for the week of September 19, 1955.\*

The principal finding in the report, as expressed by its opening sentence, is: "Within the short span of one generation this country has witnessed a transportation revolution." On the basis of this finding, the recommendations of the committee would go in the direction of making more realistic the regulatory statutes which the Interstate Commerce Commission administers,<sup>2</sup> and particularly the principles which should control when the several forms of transportation, some fully regulated, others partially regulated, and still others exempt from all regulation, compete for the available traffic of the country, particularly its freight traffic. These recommended principles are the real subject of this paper, but before they are discussed, it may be helpful to have some background—background which comes to mind to those in the railroad industry.

**I**T is only natural that when the special Cabinet committee refers to the "transportation revolution" which has occurred within the span of one generation, railroad people should regard it in terms of their rapidly increasing competition from trucks and barges for the ton miles of the country. In this competition, as is common knowledge, the railroads have been slipping—slowly but steadily. During the period prior to World War II, the proportion of total ton miles in the country moved by rail exceeded 60 per cent and during the war itself, with its restrictions upon the use of gasoline

and the shortage of rubber, it rose to 75 per cent. But it is estimated that by 1954 this proportion had fallen to slightly less than 50 per cent, the lowest point it has ever been since the last century when transportation by railroad began. Clearly, the principal factors which have enabled the railroads to remain in private operation since the last war have been increased operating efficiency and the tremendous industrial growth of the country—a growth which has allowed the railroads, despite their declining proportions of ton miles, to maintain traffic levels above those which obtained before the war.

**S**UCH a decline in the proportion of ton miles moving by rail constitutes a real threat to the railroad industry. What is perhaps more important, it constitutes a real threat to private enterprise in transportation generally. For the railroads cannot be expected indefinitely to absorb constantly increasing operating expenses—both labor and material costs—unless they can participate fully and proportionately in the traffic growth of the country. Despite the present pace, this country cannot be counted upon to grow fast enough to enable the railroads to offset not only increased expenses but also a slipping position in the field of transportation. If the present trends continue, the railroads will not be the only agency of transportation to be taken over by the government. It is a fairly safe bet that their competitors would be brought into the fold, also.

In these circumstances, it will be readily appreciated that to arrest the drift away from the rails and, if at all possible, to reverse it constitute a mission of the highest priority within the industry. One of several important tools for accomplishing it is competitive rate making, and the railroads are constantly faced with the question of when and how and under what circumstances they should undertake to adjust their rates for the purpose of more effectively meeting the competition of trucks or barges, and often both. Such adjustments, which usually reflect reductions, are, of course, subject to the review of

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the Interstate Commerce Commission, and as indicated above, the principles which should control in its exercise of this power<sup>4</sup> (as recently dealt with in the report of the special Cabinet committee) are the principal subject of this paper. But again, before turning to them, it is important to understand the nature of the beast we are dealing with; that is, the nature of the railroad rate structure which has to be adjusted in the continuing attempt to meet the compelling competition of trucks and barge lines.

If there has been one dominant influence on the freight rate structure of the railroads, it has been the test of what the traffic could reasonably bear, and in applying this test, important evidence has been the value of the commodity.<sup>5</sup> Not only have the literally thousands of items of freight traffic been classified for rate-making purposes largely on the basis of their value,<sup>6</sup> but this element, often referred to in the past as the value of the service, has been an important guide in distributing the so-called transportation burden among the more important commodity groups.<sup>7</sup> By transportation burden is meant the over-all revenues required to conduct the transportation, presumably at a profit.

For instance, the ICC has repeatedly recognized that certain commodities, principally because of their value, could be counted upon to move freely at relatively high-rate levels, and it has approved as reasonable rates which, from the point of view of transportation costs alone, would not have been upheld.<sup>8</sup> By a parity of reasoning it has recognized that low-grade commodities "must of necessity" have "the lowest possible rates which will move the traffic."<sup>9</sup> The same has been true of agricultural commodities where, according to the ICC, "public policy dictates a comparatively low basis of rates."<sup>10</sup>

Cost of service has thus not been a dominant factor in the making of railroad rates in the past.<sup>11</sup>

This type of a rate structure (which generally reflects what is said to be the *ad valorem* method of making rates) has not been too easy a beast for the railroads to handle in a highly competitive transportation field. There are at least three reasons:

**F**IRST. The *ad valorem* method of making rates has provided most favorable terms

for the trucks to compete with the railroads. For here were many items of desirable traffic moving on rates far in excess of railroad costs, and the trucks, despite their higher unit costs of operation, were able to take over—usually at rates the same as the railroad rates. They got the business at the same rates because many shippers preferred the smaller loads as units of business, and others wanted the faster service which the trucks could give or the greater measure of service which they could provide by furnishing, without extra charge, pickup and delivery and help from the driver in loading and unloading. But not only have the trucks, by concentrating on those commodities which were ripe for diversion under the *ad valorem* theory of rate making, grown rapidly but at the same time they have also been able to maintain an average freight revenue per ton mile more than three times higher than the railroad average—sufficiently high, of course, to cover their higher unit operating costs. During 1954, for instance, the average freight revenue per truck ton mile was almost 5.6 cents as compared with 1.4 cents per railroad ton mile, and yet it is estimated that 48 per cent of the tonnage which moved over the highways during that year had been diverted from the railroads since 1940.<sup>12</sup> And aside from the bonanza provided trucking in general, what could give greater encouragement to the growth of private highway transportation than a system of rate making which bears but little relation to the cost of transportation? A manufacturer will certainly be interested in escaping what he believes to be a disproportionate contribution to the revenues of regulated carriers which reflects the high value of his commodity if, by operating his own trucks, he can obtain transportation based on the lower cost of service.

**S**ECOND. In their competition with trucks, the inherent advantage of the railroads is ordinarily found in a lower unit cost level, certainly beyond 50 to 75 miles. This is established by studies of average costs as produced by the cost section of the ICC, and it has also been found in many decisions, based on the record in various proceedings. Not only are railroad unit costs lower (except for the shortest hauls), but because of the different influence of terminal expenses, they

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become progressively lower in relation to truck costs as the distances increase. Thus has the ad valorem method of rate making, in addition to constituting an open invitation for competition for the best paying traffic from a higher cost form of transportation, failed to reflect the principal advantage which the railroads could offer in their attempts to hold on to the traffic; namely, a lower cost level.

**T**HIRD. In the nature of an ad valorem system of rates, the lower valued commodities, which are ordinarily heavy-loading bulk freight, are carried at rate levels which, from the point of view of the cost of furnishing the service, are favorable to the shipper. To change these relative levels would not be realistic. In the first place, the movement of the bulk commodities has usually been encouraged by this type of a rate structure and, in a certain sense, can be said to depend upon it. In the second place, the bulk commodities are in no sense beyond competition. Inland barge transportation lives on this kind of traffic, and since the war it has made great strides forward with rates which, as applied to port-to-port traffic, are lower than railroad rates. Moreover, important movements of bulk commodities are open to highway competition. In invading this field, the trucks have generally been able to charge considerably more than the railroad rates because of superior and often more complete service, including job site deliveries.

**T**o summarize the special interest of the railroad industry in the "transportation revolution" as found by the special Cabinet committee:

It is clear that the railroads cannot sit by and allow the erosion of their traffic to continue—as it is continuing today. For if they do, it will only be a matter of time before their inherent advantage of a lower unit cost level—an advantage which has never been successfully challenged in the past and unquestionably exists today *vis-à-vis* their principal competition—will tend to disappear. A constantly diminishing proportion of ton miles over which to spread increasing labor and material costs will undermine this advantage, particularly when related, as it must be, to truck and water costs as they will be favorably influenced in the future by im-

proved and more efficient rights of way, largely provided at public expense.

In dealing with this problem and particularly the rate structure which has been described, there is much that the railroads have done, are doing, and will continue to do—within their own house and, so far as it is relevant, under the provisions of the present Interstate Commerce Act as applied by the ICC. But over and above what the railroads are able to do themselves by way of self-help, there is urgent need for prompt action on the part of Congress in clarifying the right of each form of transportation, including the railroads, to make rates which, in dealing with the competition of another form, will fully reflect its economic potential including (if it exists) an advantage of lower costs. This of course is the subject which, as inferred above, is at the heart of the report of the special Cabinet committee, and to it we now return. Since the railroads in their competition with the trucks and barges experience every known form of public control—short of direct government operation—their rôle as competitors will be used as the example in this paper.

**T**ODAY, when a railroad files a reduced rate, competing trucks and barges can protest, and if they do, the chances are better than even that the ICC will suspend the reduction pending an investigation.<sup>13</sup> Sometimes these suspensions last a long time while the ICC and perhaps the courts determine whether the proposed rate is less than a reasonable minimum.<sup>14</sup> Even if finally approved, the reduction will probably lose effectiveness because of the long suspension period, and changed conditions may make it worthless.

But not only do the trucks and barges, if they protest, have a better than even chance of obtaining the suspension of the reduced railroad rate, but under present regulatory practices they also stand a fair chance of obtaining an ICC decision to the effect that the railroads should be denied a right to assert their inherent advantage of lower cost because of the adverse effect upon them, the protesting trucks and barges. Repeatedly have compensatory railroad rates been condemned because:

(a) Such rates were "lower than necessary" to meet the competition of the other form.<sup>15</sup>

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(b) The "spreads between the over-all expenses of the transportation by water and those by rail should be substantially greater than would result from the rate proposed."<sup>10</sup>

(c) Such rates were "lower than the total expenses to shippers incurred in the transportation over the competitive routes," and "the reduced rates proposed would affect adversely the maintenance of competitive motor carrier transportation."<sup>17</sup>

(d) Such rates, although shown to approximate 146 per cent of fully distributed costs, would cast an "undue burden" on other traffic because, under the ad valorem method of rate making, the high-valued traffic should be able to bear more.<sup>18</sup>

(e) Such rates would take traffic away from tank trucks or barge lines or other forms of specialized carriage which might be useful in the event of another national emergency.<sup>19</sup>

THE rejection of competitive railroad rates on any one of the foregoing grounds constitutes an indirect distribution of the available traffic among the competing forms and operates to deny to the shipping public the advantage of lower rates—rates which in the cited cases did no more than to reflect the inherent advantage of railroad transportation. Such action has been supported by citing the prohibition against "unfair or destructive competitive practices" in the 1940 declaration of national transportation policy,<sup>20</sup> and the ICC, in its overriding desire to see that the various competing forms are protected so that "each be afforded a fair opportunity to compete for this traffic,"<sup>21</sup> has felt bound to interfere with the exploitation of real economic capabilities on the part of the railroads.

Prior to and immediately following World War II, the ICC position on this subject was occasionally different, and it went so far as to say that the effect of proposed railroad rates on competing forms of transportation was of "no legal significance."<sup>22</sup> But the likelihood of a decision such as this<sup>23</sup> is less today (although there has been no change in the governing statute during the interval).<sup>24</sup> Even in those cases where competitive railroad rates, following suspension, have been upheld, ICC approval has been based on such standards as these:

(a) It is thus reasonable to assume that

the proposed rates would draw to the respondents no more than a fair share of this traffic and thus would not be lower than necessary to meet the motor carrier competition.<sup>25</sup>

(b) In view of the amount by which the total cost of transporting by rail under the proposed rate will exceed the total cost by barge, it is unlikely that the proposed rate will divert an undue amount of traffic, if any, which now moves by barge from Houston to Baton Rouge.<sup>26</sup>

THUS do we turn again to the recommendations which the special Cabinet committee makes for ICC control of the rate making of one form of transportation when competing with another form. Their heart is found in the following quotation from pages 9-10 of the report:

Analysis of cost and rate relationships indicates that some forms of transportation have a cost superiority over others on volume movements over longer distances. On the other hand, some modes of transport, both from a service and cost standpoint, have advantages in the shorter movements, and for some type of commodities have a cost advantage for intermediate distances. However, analysis of the rate-cost relationships under which traffic is distributed as between forms of carriage discloses striking inconsistencies and an essentially unsound economic situation for which regulation is at least partly responsible.

If the market is to determine the appropriate use of each form of transportation in accord with shippers' judgments of the utility to them in terms of cost and service, rates must be allowed to reflect cost advantages whenever they exist and to their full extent. *Present regulatory policy defeats this prospect in large part since carriers, notwithstanding demonstrated lower costs, are permitted to do no more than to meet the competition facing them which, with some exceptions, means to name the same rate regardless of cost relationships.* Especially where private or unregulated competition or the prospect of its establishment is involved, even this much opportunity may be permanently denied the common carriers because of the long delay in deciding cases when proposed

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reduced rates have been suspended for investigation, thus leaving the old rates in effect during the critical period. (*Italics supplied.*)

To bring these results about, the proposed legislation which was introduced at the request of the Secretary of Commerce, as chairman of the special Cabinet committee, would not only shorten the period of suspension from seven to three months but would also prevent the ICC, when fixing minimum rates in litigation between the several forms of transportation, from taking into account certain elements. A proposed new § 15a(1) would provide:

In determining whether a rate, fare, or charge, or classification, regulation, or practice to be applied in connection therewith, results in a charge which is less than a reasonable minimum charge, as used in this act, the commission shall not consider the effect of such charge on the traffic of any other mode of transportation; or the relation of such charge to the charge of any other mode of transportation; or whether such charge is lower than necessary to meet the competition of any other mode of transportation: Provided, however, That the provisions of this paragraph shall not be construed to prohibit any carrier subject to this act from protesting or complaining in the event that a rate, fare, or charge is filed or made effective which it believes to be less than a reasonable minimum charge. Proposed new § 15a(1).

The railroad industry will support this proposed change in the law. It is generally regarded as the most important of the several recommendations made in the special Cabinet committee report.

Truckers and barge operators have said that this is a "railroad report," but it would grant nothing to the railroads which the truckers and the barge operators do not already have or would not have under its recommendations. To the extent railroad competition would be improved, it is only because the railroads have been the special victims of the situation which the special Cabinet committee would change.

**T**ODAY, under the present law, there is no power in the ICC to restrict truckers

from the assertion of what are ordinarily their inherent advantages; namely, faster and more flexible and complete transportation service in certain areas. An ability to pick and choose particular traffic is a further advantage, whether inherent or not. However, the greater part of the freight moving over the highways is exempt from rate regulation or in the form of private carriage, and the ICC is of course powerless to order any upward adjustment in the charges for such transportation however damaging their effect upon the railroads may be.<sup>27</sup>

Nor is there today, under the present law, any power in the ICC to restrict barge lines from the assertion of what is ordinarily their inherent advantage; namely, a lower cost level in relation to certain traffic (a lower cost level made possible, in part at least, by taxpayer construction, maintenance, and operation of the inland waterways which are used by this form of transportation). In the first place, an estimated 90 per cent of the ton miles moving over the inland waterways is wholly exempt from regulation and thus beyond control of the ICC.<sup>28</sup> And secondly, even as to the 10 per cent of the ton miles which are subject to ICC regulation, a special provision tucked away in the Interstate Commerce Act forbids that body from adjusting water rates in the light of their effect upon railroad traffic, and the ICC has been guided accordingly.<sup>29</sup> The Supreme Court has flatly held that in no form and in no way could the inherent advantage of lower water costs be impaired or restricted in the interest of railroad transportation.<sup>30</sup>

**I**F other forms of transportation are thus free to assert their inherent advantages when competing with the railroads, on what possible ground can it be said that the railroads should be denied the same privilege?

If able to offer to shippers rates reflecting their inherent advantage without regard to the effect upon the competitive trucks and barges, it is unrealistic to suppose that railroads would go to a cost-of-service basis of rates overnight or, perhaps, ever. On the contrary, what the railroads are clearly entitled to is the right to assert through rate adjustments their advantage of lower unit costs in those competitive situations where it can be done with profit to themselves and without discrimination among the shippers.



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In the report of the special Cabinet committee, the assertion of this right by every form of transportation is upheld because it is in the public interest. In the over-all transportation picture the committee believes that the various forms should take their proper places and play their proper rôles—not as the recipients of government apportioned traffic through artificial restraints—but as com-

peting modes of transportation under a system of competition which gives each mode full scope in the assertion of its inherent competitive advantages. The intended beneficiary of such a transportation policy, as so endorsed by the special Cabinet committee, is the public, and the railroad industry is anxious to play its full part in seeing that the public does in fact receive such benefits.



### Footnotes

<sup>1</sup> Revision of Federal Transportation Policy, a report to the President prepared by the Presidential Advisory Committee on Transport Policy and Organization, released April 18, 1955, by the White House. The members of the committee were: the Secretary of Commerce, chairman; the Secretary of Defense, and the Director of the Office of Defense Mobilization. *Ad hoc* participating members: the Secretary of the Treasury, the Postmaster General, the Secretary of Agriculture, and the Director of the Bureau of the Budget.

<sup>2</sup> To give legislative effect to the recommendations of the special Cabinet committee, bills, identical in terms, have been introduced by request in the Senate (S 1920) and in the House of Representatives (HR 6141, HR 6142).

<sup>3</sup> Hereinafter referred to as ICC or commission. The Interstate Commerce Act is divided into four parts. Part I (49 USCA §§ 1-27) deals with railroads and pipelines; Part II (49 USCA §§ 301-328) with motor carriers; Part III (49 USCA §§ 901-923) with water carriers; and Part IV (49 USCA §§ 1001-1022) with freight forwarders.

<sup>4</sup> This review occurs in the exercise of the ICC's power to fix reasonable minimum rates—a power it has had in the regulation of railroads since 1920 (49 USCA § 15(1)), in the regulation of common carrier and contract trucks since 1935 (49 USCA §§ 316(e) and 318(b)), and in the regulation of the very small part of water carriage which is under its jurisdiction since 1940 (49 USCA § 901).

In the exercise of this power, the principal guideposts are found in the 1940 declaration of national transportation policy (49 USCA preceding §§ 1, 301, 901, 1001):

... to provide for fair and impartial regulation of all modes of transportation . . . so administered as to recognize and preserve the inherent advantages of each; to provide . . . economical, and efficient service and foster sound economic conditions in transportation and among the several carriers; to encourage the establishment and maintenance of reasonable charges for transportation services, without . . . unfair or destructive practices . . . all to the end of developing, co-ordinating, and preserving a national transportation system by water, highway, and rail, as well as other means, adequate to meet the needs of the commerce of the United States, of the Postal Service, and of the national defense.

For further guidance, each of the several parts of the Interstate Commerce Act includes a rate-

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making rule which establishes standards for reasonable rates, 49 USCA §§ 15a (2), 316(i), 907(f). In the fixing of railroad rates, for instance, the ICC is directed to give due consideration to their effect upon the movement of the traffic "by the carrier or carriers for which the rates are prescribed," to the need of adequate and efficient service "at the lowest cost consistent with the furnishing of such service," and to the need of revenues which will be sufficient for the railroads under efficient management to provide such service. The standards in the other rate-making rules are substantially similar.

<sup>5</sup> *Lignum-Vitae Corp. v. Alabama G.S.R. Co.* (1947) 268 ICC 599 at 606.

<sup>6</sup> In 1887 the ICC described rate making based on the value of the commodity as similar to "taxation; the value of the article carried being the most important element in determining what shall be paid upon it." 1 ICC Am Rep 1887 at 31. The ICC has also referred to the classification of freight as the "foundation of rate making," 8 ICC Ann Rep 1894 at 34. Cf. *All-Freight from Eastern Ports to the South* (1941) 245 ICC 207 at 224, 225.

<sup>7</sup> *United States Sugar Corp. v. A.C.L.R. Co.* (1950) 277 ICC 193 at 202.

<sup>8</sup> *Alabama G. S. R. Co. v. United States* (1951) 340 US 216 at 223, 95 L ed 225; *Sugar Cane from South Florida to Clewiston* (1951) 281 ICC 47 at 363; Cf. *Iron and Steel to Iowa, Minnesota, Michigan, and Wisconsin* (1945) 26 ICC 361 at 383, 384; *Petroleum Rail Shippers' Asso. v. Alton & S. E. Co.* (1941) 243 ICC 589 at 666; Cf. also *Cotton, Woolen, and Knitting Factory Products* (1944) 258 ICC 471 at 486; *Lake Cargo Coal from Illinois, Indiana, and Kentucky, to Chicago* (1940) 243 ICC 404 at 409.

<sup>9</sup> *Rates on Chert, Clay, Sand, and Gravel* (1927) 122 ICC 133 at 164, 165.

<sup>10</sup> *Virginia-Carolina Chemical Co. v. St. Louis S. W. R. Co.* (1909) 16 ICC 49 at 52-53; *Livestock, Western District Rates* (1931) 176 ICC 1 at 83; *Fertilizer in Central Territory* (1940) 237 ICC 399 at 403, 404; *American Agricultural Chemical Co. v. A.C.L.R. Co.* (1944) 258 ICC 779 at 787; *Co-operative G. L. F. Mills, Inc. v. Central R. Co. of New Jersey* (1947) 268 ICC 407 at 418.

<sup>11</sup> In certain cases the shippers have tried to use cost evidence, sometimes produced with the help of the ICC cost section, to indicate an unreasonably high level of rates, and in other instances the railroads have themselves relied upon average costs when the particular rates under attack could be defended on that basis. *Alden Coal Co. v. Central*

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R. Co. of New Jersey (1943) 256 ICC 401 at 423; modified (1945) 263 ICC 639; Ashland Coal & Ice Co. v. A.C.L.R. Co. (1943) 256 ICC 429 at 432.

In still other instances the railroads have made special studies of the costs of specific traffic, going behind the readily obtainable and sometimes misleading averages, when seeking to justify rates as reasonable minima, but these occasions have not been too frequent. *E.g.*, Lake Cargo Coal (1928) 139 ICC 367 at 377-379; Molasses from New Orleans to Peoria and Pekin (1939) 235 ICC 485 at 491, 492; Petroleum Products from Los Angeles to Arizona and New Mexico (1951) 280 ICC 509 at 513, 514; Petroleum Products in California and Oregon (1952) 284 ICC 287 at 295, 304.

<sup>12</sup> If, in 1954, the railroads had had the same proportion of total rail and truck ton miles as in 1940, their traffic would have been 100,518,000 ton miles in excess of their actual traffic. These 100,518,000 ton miles—which the railroads lost to the trucks during the interval—constituted 48 per cent of the total truck ton miles as estimated for 1954. For 1940 ton miles, see ICC Statement No. 544, file No. 10-D-7, March 1954; 1954 ton miles are preliminary estimates based in part on 1953 actual results, as shown at 68 ICC Ann Rep (1954) at 30.

<sup>13</sup> "Does the ICC 'Manage' the Railroads?" Address by Anthony F. Arpaia, commissioner, Interstate Commerce Commission, before the New York Society of Security Analysts at New York, New York, December 3, 1954. He said in part:

According to law, in the absence of special permission, a rate must be filed thirty days before it is to become effective. Within that time a rate can be protested as unlawful on some ground provided for in the act, and such protest must be made at least twelve days before the effective date. Through a board of suspension the commission can suspend a rate upon protest. The commission also can suspend on its own initiative. Now, how often are such rates suspended? I took the first six months of 1954 as a representative period. Of approximately 25,000 tariffs covering thousands of rate schedules filed during that period, mostly reductions, 1,199 tariffs were protested. Significantly, 90 per cent of these protests were by carriers against rates of other carriers. Of those protested only 68 per cent were suspended. That the commission suspends on its own initiative sparingly is revealed by the fact that only 15 of the 1,199 schedules, or less than one-half of one per cent (*sic.*), were so suspended during the first six months of 1954. (*Italics supplied.*)

<sup>14</sup> *E.g.*, Automobiles from Detroit to the East (1953) 288 ICC 351, (1954) 292 ICC 167 at 168, 169.

<sup>15</sup> *E.g.*, Petroleum Products from Los Angeles to Arizona and New Mexico (1951) 280 ICC 509 at 516.

<sup>16</sup> *E.g.*, Aluminum Articles from Texas to Illinois and Iowa (1954) 293 ICC 467 at 471.

<sup>17</sup> Petroleum Products in California and Oregon (1952) 284 ICC 287 at 304, 305, 306. For further protection of water competition, see Scrap Rails from Southern Ports to Chicago (1951) 283 ICC 357 at 361.

<sup>18</sup> *E.g.*, Alcoholic Liquors in Official Territory (1951) 283 ICC 219 at 223, 229.

<sup>19</sup> Pacific Inland Tariff Bureau et al. v. United States (DC Or 1955) 129 F Supp 472.

<sup>20</sup> 49 USCA preceding §§ 1, 301, 901, 1001. But see the special policy for water carriers in 49 USCA § 905(c) as discussed in note 29 *infra*.

<sup>21</sup> Petroleum Products in Illinois Territory (1951) 280 ICC 681 at 687, 688.

<sup>22</sup> Groceries from Boston to Maine and Vermont (1941) 248 ICC 199 at 202.

<sup>23</sup> *Cf.* Petroleum and Petroleum Products from California to Arizona (1940) 241 ICC 21; Seatrain Lines v. Akron, C. & Y. R. Co. (1940) 243 ICC 199.

<sup>24</sup> Indeed since 1939 the ICC decisions on this general subject defy reconciliation. They reveal neither a consistent course nor the application of fixed standards. New Automobiles in Interstate Commerce (1945) 259 ICC at 536-539.

<sup>25</sup> Gun Wad Felt—Newark, New Jersey, to Anoka, Minnesota, I. & S. Docket 6116, report on reconsideration dated March 1, 1955, mimeographed. Commissioner Alldredge, dissenting, said in part: "... In the absence of evidence of record clearly showing that the rate parity presently existing between the motor carriers and railroads has operated to deprive the railroads of all of this traffic, and that the proposed rate is necessary to enable respondents to compete fairly for a share of the traffic, the conclusion is inescapable that they have not sustained their burden of proof."

<sup>26</sup> Iron and Steel Billets, Houston to Baton Rouge (1954) report on reconsideration, 293 ICC 233 at 235.

<sup>27</sup> Private highway transportation, when added to that part which is exempt from regulation under such provisions as 49 USCA § 203(b)(6), leaves only about 40 per cent of highway ton miles under the control of the ICC. 68 ICC Ann Rep (1954) at 30; Monthly Comment on Transportation Statistics, ICC Bureau of Transport Economics and Statistics, November 10, 1954, at 14.

<sup>28</sup> 49 USCA §§ 303(b), (c), and (d), which exempt water transportation of commodities in bulk. These exemptions, which are estimated to include 90 per cent of all inland water tonnage, have been found by the ICC to make "effective regulation of water transportation impossible." 668 ICC Ann Rep (1954) at 20.

<sup>29</sup> 49 USCA § 905(c). See Cotton from Memphis and Helena to New Orleans (1948) 273 ICC 337 at 365, 366. For criticism of this preferential treatment of water carriers see Oppenheim, *The National Transportation Policy and Inter-carrier Competitive Rates* (1945) at 71-77, wherein it is said, in part: "To give water carriers a carte blanche immunity from the restraint of unfair or destructive rate practices not only negates the principle of equality of treatment so fervently espoused by the majority of Congress but it also flies in the face of the minimum rate control provisions applicable to water carriers under Part III of the act. (Section 306(e), (h), 307(b), (d), (e), (g), (h).) Congress no more intended that the rates of the rail carriers should be regulated solely for the benefit of water carriers than the competitive rates of any two types of carriage should be regulated for the benefit of one. Equality of treatment cannot be achieved by playing favorites with any mode of transportation. If the rail carriers cannot right-

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fully claim that the motor carrier rates or water rates are unlawful solely on the ground that they divert traffic from the rails, fair and impartial regulation precludes the other types of carriers from

making the same claim. One cannot blow hot and cold at the same time."

<sup>30</sup> Interstate Commerce Commission v. Mechling (1947) 330 US 567 at 577, 579, 91 L ed 1102

### Transportation Deregulation from the Shipper's Viewpoint

By JOHN S. BURCHMORE\*

THE assigned topic presumably contemplates a substantial though indefinite relaxation in regulating transportation rather than general abrogation of the present plan or repeal of federal and state statutes providing administrative supervision over practices and charges of common carriers. The shipper's viewpoint presumably refers to the interest of users, the broad public interest of all who are engaged in general business, excluding or distinguished from the carriers who perform the functions of transportation.

It seems almost self-evident there must be restored to carriers much of the freedom and most of the responsibility of management for meeting fully the real and legitimate public needs and for the success of their enterprises. Thus the administrative agencies will be relegated to the position of policing the practices against manifest abuses or extremes and enforcing fair dealing, honesty and integrity, redressing grievances, and arbitrating disputes. This is all in the nature of supervision and review as quite distinguished from initiating rates, or rate structures, or in any substantial degree conducting affairs for the carriers. This objective spells deregulation, in a broad constructive sense; and I have no hesitation in recommending these results as in the interests of shippers and users of transportation.

#### I.

OUR national economy is commonly referred to as private enterprise or more colorfully as The American Way. Contrasting with the ways or philosophy of Socialism, the theory and facts are that under private enterprise the people have enjoyed constant material progress in the betterment of goods, products, and services, and lower costs, through the workings and efforts of the different private concerns which vie with

one another for the public's patronage and favor. This has extended from the broad commerce of manufacturing and distribution to the specific function of transportation as a servant of that commerce in moving the goods and carrying the people from place to place, as desired by the persons served.

These condensed observations are simply prefatory to declaring general public conviction, well-nigh unanimous, that continued conduct and furnishing of transportation by private corporations or owners, who frankly have the profit motive, is greatly to be preferred to public ownership or management of transport agencies; *i.e.*, government ownership or "federal control" of railroads and other agencies.

Therefore, twin propositions: (a) that transportation is the servant of commerce, better conducted privately than by the government, and (b) that the public interest calls for dynamic enterprise in all agencies of transportation, which will generate wider and greater use by shippers of each form and make for progress and improvement in the nation-wide system and all of its parts. Thus the public requires more than mere maintenance of a sound, sufficient, and vigorous transportation service by all available modes, each operating within its respective capabilities and developing and functioning in accordance with the demand for its services indicated by the public.

#### II.

RULES and regulations in and of themselves do not produce better results in any line of activity and the ultimate purpose of rules or of the regulating of any branch of business is to create an atmosphere and insure conditions most conducive to healthy growth and best possible service.

Since both experience and sound reasoning indicate that transportation will be conducted best under a competitive system of

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private operation, it follows that the economic regulation of transportation by our federal and state governments should be reduced to a minimum, consistent with protection against excesses and abuses.

### III.

LOOKING backwards, through the past three-quarters century, federal regulation of carriers began with the enactment in 1887 of the original Act to Regulate Commerce. This was at a time when the railroads were very strongly predominant, with a minor volume of domestic water transportation and only local highway carriage. The railroad picture of the eighties was a sorry mess, including financial exploitations and corporation dishonesties, and shippers and communities alike suffered great and widespread discriminations in rates, with prevalence of rebates, drawbacks, and secret rates lower than the public tariffs. Professor Arthur T. Hadley of Yale, writing in 1885 a book of interesting appraisal and review entitled *Railroad Transportation*, pictures these conditions, describes monopoly as the opposite of competition, and remarks that while "we are generally supposed to live in an age of competition, the railroad is not merely an instrument fostering monopoly; it is itself an example of the tendency toward monopoly." He demonstrated an incongruous condition of railroad monopoly and of excessive competition among the rails!

For the first twenty years the Act to Regulate Commerce was rather weak and ineffective and when rebating and other practices again assumed scandalous proportions, the Hepburn Act of 1906 put teeth into federal regulation of railroads. Since that time, as the years have passed, the national law has been progressively strengthened, made more rigid, and the power and functions of the commission have enlarged and its controls tightened. In 1935 Congress broadened the commission's jurisdiction to extend to highway transportation and in 1940 to water transportation, theretofore regulated only when in connection with rail. This completed the comprehensive coverage which provided the means for restraining competition artificially and, shippers think, unduly. As each difficulty has arisen or resistance has been encountered in the successful functioning of the commission, the applied remedy

has been more power in the administrative agency, something less of freedom and responsibility for the carrier managements, greater and more intense regulation.

Today under the present substantive rules of the statute, enlarged by accepting the declaration of policy in the preamble to the act as equivalent to a "general welfare" clause, the commission does not claim that its regulation of motor carriers by any means has been satisfactory or too successful. Controversies are intense as to the respective rights of rival agencies of transportation and as to the remedies and solutions for the so-called transportation problem.

### IV.

As a lawyer practicing before the commission for a good many years, thus closely observing its work and performance, I may be permitted to offer personal tribute to the Interstate Commerce Commission, as the one great agency of government which has been standing out conspicuously as reliable, progressive, popular, and successful. I wish to claim that privilege, particularly as I am advocating restrictions and lessenings rather than strengthening of its powers and jurisdiction.

Throughout the history of nearly three-score years and ten, the commission has been composed of capable and honorable men; although most of its members have been appointed without much previous experience in transportation, they have quickly adapted themselves, have fallen into established traditions, and have applied the rules and principles of rate regulation expertly and by and large most commendably. In large measure the success of the commission's work through the years of rate review and financial supervision, etc., has been creditable to the quality and efficiency of the staff of men, expert in matters of rates, services, practices, and the law of carriers.

During the war, certain offices in Washington displayed a motto something like this: "The difficult task is done immediately; the impossible only takes a little longer." All well enough as a slogan in dangerous days. But in the sober consideration of regulating any branch or activity of society or field of effort, we should recognize that while a difficult job can be done well and promptly, a comprehensive undertaking may become gi-



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gantly large and too complex for any possibility of practical success. So it proved with prohibition enforcement. In detail the regulation of all rates of all carriers throughout forty-eight states, with any pretense of thoroughness, is an Herculean undertaking. The regulatory task of the ICC already has become so huge that continued successful functioning is impossible, with any sort of thoroughness, hence much of the discussion of the problem of transportation of today and agreed necessity for further legislation. Alas, the commission's emphasis seems to be for stronger rather than for desirable management responsibility.

### V.

THE speaker preceding me on the program of this meeting, my good and distinguished friend Jervis Langdon, Jr., is discussing the rather recent report of the President's special Cabinet committee, sometimes referred to as the Weeks Report. That report was prepared or written very largely from the viewpoint of the shipper, the user, rather than in the interest of carriers as a whole or of any class, and particularly considered effects on commerce (manufacture, production, and distribution); yet it gives due consideration to the rights of the carriers and to the effects of the proposals upon them.

Without having heard Mr. Langdon's discussion, I naturally assume it would be repetitious for me to refer to the interesting and persuasive recitals of the Weeks Report of the great and indeed revolutionary change in the transportation setup from times of railroad monopoly in transportation to the present, when competition has become the paramount and compelling factor and force in the whole picture.

It should suffice to point out that the express conclusions of the Weeks Report that the transportation industry operates today in the general atmosphere of pervasive competition; in other words, that with the growth of new forms of transportation, both public and private, competitive conditions have been substituted for much of the monopoly element in the common carrier industry, which in the past prompted so much of our present transport policy, both regulatory and promotional; and that radical adjustment of regulatory programs and policies to these competitive facts is long overdue. The specific rec-

ommendations of the report are considerably tempered, reflecting apparent compromises and various inconsistencies and fall far short of any semblance of radical deregulation.

### VI.

SPOKESMEN for the railroads have been criticizing the Interstate Commerce Act for years and their complaints have become greatly intensified of late, because of its unfairness in the stringent provisions governing railroads compared with the supposedly more liberal treatments (and exemptions) in the fields of highway and water services and carriers. Representatives of motor carriers have been equally outspoken in expressing disappointment and resentment of the ills they suffer under common regulation by the same agency, as the present rules of the statute have been interpreted. These conflicts of interest and of complaints are not at all confined to policies or actions of the commission, or requirements of the statutes; they extend also to general features of government treatment of the agencies of transport, matters of subsidies, taxes, franchises. The rails are demanding stronger, more stringent laws and rules against motor carriers, and water lines; the latter seek greater protections against the rails. We have the spectacle of strongest competition among the several types of carriers in their demands for legislation, added to the pervading competition for traffic which is perfectly described in the aforementioned Weeks Report.

Since I am in the rôle of spokesman for shippers, I should be considered qualified to state the general position of the shipping public is one of sympathy for all forms of transport, provided each mode seriously undertakes to serve the public to the best of its ability and without picking and choosing the desirable traffic and leaving the unprofitable to others!

Shippers desire and claim the privilege of selecting for themselves the type of service, the mode of transport, the particular carrier they shall use on every occasion, and will strenuously object to any allocations or assignments, whether by carrier actions or by commission dictates, of traffic or proportions of traffic to certain forms or agencies. There is a strong and growing feeling, among shippers generally, shared by some carrier people, that commission decisions are at times

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aimed rather definitely to separating and dividing the business, among rival carriers, preserving to each mode what should be regarded as its "fair share" of the total particular category of traffic under immediate consideration.

The canned goods and iron and steel rate cases are two recent striking examples where the commission is fixing rates of contract and common motor carriers and railroads (all three) by certain fixed relationships and on minimum bases considered fairly profitable, which is nothing but arbitrarily relating the several carriers in accordance with what the commission thinks is the ability of each to compete and get its fair share of the business.

Regulating a monopoly is one thing in the interest of protecting the public against discriminations and excessive charges, but regulating competition deprives the public of something substantial; that is, the enjoyment of inherent advantages of qualities, economies, adaptabilities of respective particular forms of service.

### VII.

**I**T may make for better understanding, to consider some typical situations or problems of the times:

1. A new industry considers locating and finally locates, or a new development occurs, furnishing a large volume of freight of certain character at a spot or in an area. This creates a demand either for new or enlarged transport facilities or services, or for establishing suitable rates to take care of the new business, or both. There may be a railroad there; but the industry thinks it will require additional railroad facilities and another railroad wants to come in. There may be no available motor carrier service; the industry wants to use the highways in part, wants one or several motor carriers to come into its picture; and such carriers are ready and eager to enter. The commission's decisions are somewhat vague, inconsistent, and inconclusive as to the final answer of public convenience and necessity in such situations. If a railroad is ready and willing to haul all of the industry's freight, is there public necessity to justify (or require) a new franchise for one or more motor carriers, or water lines; and if there is, for how many such new operators?

2. A completely different problem arises

when a motor carrier, for example, concludes it is not getting a satisfactory volume of particular freight and concludes it should reduce its rates to what it considers will be a profitable level to get the business as against rail movement; and it publishes this reduction. The railroad counters by a corresponding cut in its rates. Of course, the reverse of such course of rival moves may occur. Or, it may be motors collectively against rails collectively, or vice versa. We may have a rate war. The carriers are not by any means the only interested parties. The shippers who use the carriers, the shippers who pay these rates; the competitor shippers from other origins or at other destinations are greatly concerned. The situations become extremely complex. The answers are difficult. The solutions often are uncertain or unsatisfactory.

3. Again, a community or a shipper may be enjoying adequate transportation services, theoretically or on paper, yet may get very little or very poor performance. Proverbially the railroads, as common carriers, receive and transport all the business which everyone offers to them, anywhere on their lines, no matter how unprofitable and thus undesirable the traffic may be. Not so as to the other types of carriers in anything remotely resembling universal or even general practice. Water lines are rather limited by their natural conditions. Innumerable motor common carriers are actually narrowly limited to certain commodities by franchise restrictions. The motor common carriers of general commodities (supposed to resemble the railroads) do a vast amount or degree of picking and choosing in actual performance, as to whose freight and of what sorts they will pick up and haul. Furthermore there is great and continued effort to fashion their rate schedules not simply to attract the better paying traffic, but to discourage or drive away commodities which cannot be handled to best advantage and which they would prefer see moved by the ever-obliging railroads. Freight forwarders are highly selective. Their rates are so arranged as to accommodate the handling of small shipments which by consolidating with others they can have the physical carriers transport at carload or quantity rates. It would be utterly impossible for forwarders to serve all towns or cities, as to all commodities moving in small lots, in the fashion of the railroads which serve as common

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carriers of everything for everybody everywhere they go.

4. The trailer-on-flatcar service, picturesquely described as piggy-back service, is not at all a new invention. It was established for limited operation between the Twin Cities and Chicago, for example, as far back as 1930, and the organized railroads—not progressive—fought it. There were heated proceedings. But the practice suddenly came to life, became popular, and was strongly advocated by both rails and shippers alike rather recently. Why was such progressive matter so long dormant, unless for the natural inertia which results from subduing management initiative, experimenting, and developing, where regulations lessen the actuality and sense of carrier responsibility?

I have referred to these few varied situations as typifying some of the practical affairs that are going on, in which the shippers have a large and vital interest, and in which the commission has a task which I believe has become utterly impossible for it to perform with fairness, justness, or satisfaction to all concerned. The present general scheme of regulation is outmoded as regards such illustrative situations.

Shippers who think things through want the carriers individually and collectively, by groups and types and as a whole, to maintain rates which will enable them profitably to perform the transportation services which they are qualified to render or hold themselves out to furnish. The shipper, of course, wants the benefits of competition, the advantages that come from rivalries. He does not want anyone to tell him how he must ship, what carrier or form of transport he must use or may enjoy! He wants redress for undue discriminations and protection against unfair advantages to his competitors.

**M**ANY shippers have concluded that what regulation is principally doing these days is restraining competition. In place of the long era of maximum rate cases and general rate adjustments, in bygone times when the railroads were in something of a monopoly position, we have now come to a point where the maximum rate cases are relatively uncommon and a great proportion of commission proceedings are contests between two forms of transport, each seeking to maintain lower rates to get the traffic, or broad efforts

by carrier groups to have the commission prescribe uniform (high) rates, as a floor, to preserve the revenues of the carrier groups from their own internal competitive forces.

A case presently pending in one of our ablest, most active state commissions furnishes an illustration of a powerful and determined organization of motor carriers, with the apparent acquiescence of the commission, endeavoring to eliminate all competition in rates within the motor industry, by the promulgation of a floor of statewide minimum class rates, regardless of the effect on individual carriers and with the certain result of detriment to the public to the extent it is interested in the cost of transportation and hence in the rate levels.

### VIII.

**I**T would be fine if this federal tribunal of highest repute, integrity, industry, public favor, were able to consider the tens of thousands of individual incidents of these and other types throughout the forty-eight states. All concerned should face the truth, however, that the volume of its work has grown so great that there can be only a pretense of true consideration of innumerable situations. And the consideration, the work, the examination into the facts, must be and often is by one or two individual men on the commission's staff, of whom the public never hears, or who have no contacts with the parties, no recognized centering of responsibility. They are men of heavy responsibility, in actuality, working hard at thankless jobs of doing work for which they will have little praise or satisfaction.

If present results of the commission's administration of the law are unsatisfactory, shall the load be increased by additional functions or heavier responsibilities?

### IX.

**I**T strikes me there is sufficient demonstration that stronger, tighter, more restrictive legislation, which will still further enlarge the regulatory processes of the commission, cannot be the answer to disappointment in the present law. This is for two reasons: *First*, under pervading competition, the transportation picture has become so complex that the task of regulating in necessary detail has become too gigantic for successful

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performance by a commission in Washington, even supplemented by very large regional field forces; and, *second*, co-operation is highly essential so that managements of carriers must be given primary power and utmost responsibility for making their operations successful—in serving the public and in profits to the owners.

### X.

To philosophize a bit, I may remark that freedom and power are dangerous things when divorced from responsibility. Sharing responsibility is fine, when it means co-operation toward a common success; divided responsibility is not at all good when it enables either to blame the other for failure or to "pass the buck."

The success of private enterprise lies quite largely in the fact that those running the business are responsible in the strictest practical sense for the success of the general undertaking. The profit motive is a less pleasant way of describing the incentive for good work and planning. An athlete strives to win the race or plays the game; and the medal is a symbol of success and an incentive towards winning. Just so, the officers of a carrier will have commendable pride in earning good dividends, if accompanied with the reputation of having well served the public. Government conduct of a business loses or greatly lessens this incentive and responsibility.

Strict governmental regulation unfortunately not only deprives the managements of a large amount of freedom of decision, policies, planning, but it further results in serious deterioration of management responsibility. Undue or unnecessary interference with the work of those entrusted with the running of a business, the conduct of a carrier enterprise, deprives the managers of that real opportunity for using their best brains, free initiative, full diligence, which are essential to the sort of success which is the natural and proud result of free enterprise.

It does not make so much difference where that interference comes from. I submit it is mighty bad for any business if the owner-managers are plainly told by their lawyers how they must run that business (not for keeping out of jail) to make it successful. Banks should be run by experienced bankers; shops by experienced merchants; factories by qualified manufacturing men; railroads,

trucking, or water operations by experienced transportation men.

The Interstate Commerce Commission's ideas may be entirely sound and correct, yet when they produce any deterioration in the sense and actuality of management responsibility, the effect is greatly against shipper and public interest. This is in derogation of the whole philosophy of private enterprise as contrasted with Socialism or public ownership operation.

### XI.

THE paramount desire and need of shippers being for a sound system of transportation, of all forms, efficiently conducted and on fair terms, it seems to me the only promise of any confidence for preserving these ends lies in the resource and ingenuity and incentive of managements of carriers, vying with one another in and between their various fields, in conducting their operations and initiating their pricing. This without any such restraints as tend unduly to hamper or restrict that freedom of action which is essential to responsibility.

Commission regulation of railroads was truly successful; yet in the broadened scope of attempted regulation under the one agency of all forms of interstate surface transportation it cannot be said that success is being attained, that present rules, methods, and procedures are satisfactory to any segment, carriers or shippers, or to the commission itself. Tightening of the laws and extension of the commission's powers and responsibilities, the latter divorced from any responsibility of ownership, or any practical incentive to the regulators, will simply add to the great burden of administrative work and give no promise to carriers or to shippers of adequate consideration and sound mature action on complaints, in disputes, or upon problems.

Therefore, I submit that the shippers' interest lies in a large measure of deregulation in ways which will restore and strengthen management responsibility, implicit in true exercise of private enterprise. There are marked inconsistencies and many uncertainties in the recommendations of the Weeks Report which does not go the whole way of restoration of responsibility, stirring of initiative and dynamic forcefulness in management, but offers much that is good.



## Comparison of British, Canadian, and American Transport Rate Regulation

By EDWARD A. KAIER\*

THE basic duties to shippers and receivers of freight that are now enjoined upon railroads by the Interstate Commerce Act<sup>1</sup> have come down, almost unchanged, from the original Act to Regulate Commerce,<sup>2</sup> which became law in 1887. These include, principally, the obligation to charge no more than a reasonable rate, the duty not to discriminate in rates as between shippers, and the more general rule of equality which forbids undue prejudice and preference as between persons and localities. To implement the antidiscrimination provisions, there is the requirement that charges be set out in published tariffs and that only the rates there specified be assessed.

The prohibition against unreasonable rates is one that was deeply rooted in the common law of England,<sup>3</sup> and the American provisions against unjust discrimination and undue preference and prejudice were lifted almost verbatim from English statutes which preceded the Act to Regulate Commerce by as much as forty-two years.<sup>4</sup>

These provisions against discrimination were the very heart of the original Act to Regulate Commerce. "The great purpose of the act," said the Supreme Court in one of its early decisions thereunder, "was to secure equality of rates as to all and to destroy favoritism."<sup>5</sup> Again, "The act was intended to cut up by the roots the entire system of rebates and discriminations, and to put all shippers on an absolute equality."<sup>6</sup>

MARKING the fact that these basic duties to shippers have their historical antecedents in British law, seems to me a good place to start this discussion of the comparative provisions of British, Canadian, and American law on this subject.

It is necessary, I think, to establish another historical fact; namely, that the regulation of railroad rates was initially imposed because railroads exercised monopolistic powers and by reason of the abuses which resulted from the fact of monopoly—in greater

or lesser degree—in railway transportation.

From a doctrinaire point of view, the idea that railroads were exercising a public function in providing transportation constituted a basis for the regulation of their charges, even before the idea of monopoly arose. The early English railroad charters required the companies to admit to their lines the cars and locomotives of other companies and individuals and the acts usually prescribed the maximum tolls to be charged for such use. The railroads were regarded as being much like canals; each provided a way by means of which others, with their own vehicles, might get from place to place. Both, in this respect, were akin to roads, which had customarily been furnished and maintained by the state. Competition between the different carriers who were expected to use these early railroads was initially relied on to insure that the charges for transportation would be fair.<sup>7</sup>

NOT long after the opening of the first English railway, however, it came to be recognized that a railroad must, to some extent, be a monopoly, because the service to be performed was such that the greatest economy and efficiency would be attained by committing to one carrier the function of transportation over the rails of a given railroad. That carrier, of course, was the railroad company itself.<sup>8</sup>

In the Cullom Report, the great report which preceded and recommended the enactment of our Act to Regulate Commerce, it is stated:

... when we consider the imperial influence which these most mighty engines of civilization can exercise upon the development, progress, and commerce of the country, making possible the ruin or prosperity of cities, states, or even larger areas of our territory by the exercise of their power, it becomes evident that the state possesses the right to supervise and regulate the administration of such imperial power upon the broad ground of public policy, in addition to the fact that a railroad corporation

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manages a public highway, exercises a public function, and is in the nature of a monopoly.<sup>9</sup>

Whether we deal merely in legal concepts, or in the real, present, and forceful pressures which brought forth the early legislation governing railroad rates first in Great Britain and then in this country, it must be concluded that monopoly and the actual and potential evils flowing therefrom constituted the motives behind the subjection of railroad rates to the authority of the state. The fact that the monopoly was sometimes limited by the existence, between certain points, of competing lines only intensified the motive for discriminations. It created the urge on the part of one railroad to take business from a competing railroad by means of concessions to favored shippers, particularly the larger ones, while the smaller ones or those without the benefits of competition were left to pay higher charges, sometimes to their ruin.

**A**LONG with the historic requirement of reasonableness, the antidiscrimination provisions which were basic to English and American statutory law, likewise became the cornerstone of rate regulation in Canada.

In the American statute, the only important changes dealing with rates until 1920 were designed to strengthen and to insure or compel compliance with these basic duties. The commission was given the power to prescribe rates and to suspend the application of new rates—whether increases or reductions—and rebating was visited with heavy criminal penalties. Changes in the British law from 1873—when the publication of rates was required<sup>10</sup>—until 1921 were also not such that we need take note of them here.

The English Railways Act of 1921 consolidated 123 railway companies into four large group companies. The act provided that the rates of the companies should be fixed at an amount which would cover operating expenses, remunerate their investments, and provide for future capital needs. Here again is a very close parallel between British and American law. For the 1921 British Act proceeded on the same theory as our Transportation Act of 1920,<sup>11</sup> which provided that the Interstate Commerce Commission should fix the rates of the railroads so that, by appropriate groups, they would

earn a fair return, of fixed amount, on the value of their properties.

**B**y the time the provisions of their 1921 act had come fully into force, a tremendous truck competition had developed in Great Britain.<sup>12</sup> It was now no longer possible to produce a given amount of railroad revenue merely by an adjustment of rates. The basic philosophy of the 1921 act, therefore, was undermined. The British method of dealing with this situation was to give the railroads more freedom in meeting the rates of their new and strong competitors. The railroads had first sought, within the framework of then existing law, to make what they called "agreed charges," charges under which a special rate would be given to one who agreed to ship all or a stated percentage of his goods by rail. This effort, however, was thwarted by a decision of the court of appeals, which was affirmed in the House of Lords—not because it ran afoul of the antidiscrimination provisions of the British statutes but because it purported to fix rates which were outside and beyond the statutory classification which then existed and which consisted of so-called standard and exceptional charges.<sup>13</sup>

This holding was met by the enactment, in 1933, of a statutory provision legalizing agreed charges provided that they met a whole series of regulatory requirements, including prior approval by the Transport Tribunal.<sup>14</sup>

When the Labor party came into power after the war, both the railroads and long-distance trucking undertakings were nationalized.<sup>15</sup> For this purpose, anything over 25 miles was regarded as long distance. The statute created a Transport Commission to manage the railroads and long-haul truck operations and it directed that body to submit a charges scheme, or tariff, the effect of which would be to encourage the use of trucks where they were best fitted and most economical and, correspondingly, to use the railroads where they occupied that position. Before the charges scheme went into effect, the conservatives regained control of the government.

**T**HEN the Transport Act of 1953 was passed.<sup>16</sup> That act directed that the trucks be returned to private hands, that the

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railroads remain nationalized but that they pay their own way. Parliament decided that if the railroads were to live and pay their way, the objective must be to make them as free in competition as the truckers with whom they competed. It repealed the ancient prohibitions against discrimination and undue prejudice. It provided for the filing of maximum charges with the Transport Tribunal, the actual rate to be charged, however, to be whatever the Transport Commission—the agency in charge of running the railroads—might decide in private negotiations with the shipper. Except in one situation, the bargain reached in the negotiations between the railroad and the shipper is regarded as being as completely private as if it were an agreement for the sale of an automobile or some steel or coal or any other commodity. It need not be published or reported to the Transport Tribunal. The extent to which the statute goes in freeing railroad rates of the classic restraints is indicated by paragraph 2 of § 20, which provides, in part, that

Every charges scheme shall, as respects the services and facilities to which it relates, comply with the following requirements, that is to say—

- (a) it shall not provide for fixed charges or standard charges;
- (b) it shall fix maximum charges except in cases where it appears not to be reasonably practicable or to be undesirable so to do;
- (c) in cases in which no maximum charge is fixed it shall authorize the commission to make such charges as may be reasonable and provide for any questions as to the reasonableness of any such charge being determined on the application either of the commission or of the person liable to the charge by the Transport Tribunal, to the exclusion of any other court;
- (d) it shall, save as aforesaid, and subject to the provisions of this act, secure that the charges to be made are left to the commission's discretion and that no conditions or limitations are imposed on that discretion;
- (e) it shall secure that the commission have to publish the maximum

charges but do not have to publish any other charges . . .

THE act proceeds on the theory that competition between the truckers and the railroads will insure the protection of shippers and of the public interest that was formerly insured by the antidiscrimination provisions and the requirement for publication of the precise rates to be charged. The monopoly once held by the railroads is gone and, therefore, the legal restrictions which were imposed because of the existence of monopoly have been swept away.<sup>17</sup>

It is true, of course, that there may be situations in which some people are dependent, either absolutely or from a practical standpoint, solely upon the railroads for transportation. The act takes cognizance of that fact and provides that any person desiring to ship by railway in circumstances in which the merchandise cannot reasonably be carried by any other means of transport and who believes that the charge by railway is unreasonable or unfair may complain to the Transport Tribunal, that "On any such complaint, the Transport Tribunal shall hear the complainant and the commission and shall first satisfy themselves that, in the circumstances in which it is to be carried, the merchandise cannot reasonably be carried by any means of transport other than railway." It then provides that upon making this finding, the Transport Tribunal may, on the complainant's application, require the commission to disclose to the complainant any charges which are being made for rail transportation for the same or similar merchandise in similar circumstances. Thereafter the tribunal shall consider whether or not the charge complained of is unreasonable or unfair and if it concludes in favor of the complainant, it may make such order as it considers just.

TRUCK rates are not subject to regulation in Great Britain and the truckers have no standing to question an agreed rate for railway transportation.<sup>18</sup> The 1953 statute preserves, however, the right (given by the Road and Rail Traffic Act, 1933) of coastal carriers to complain to the Minister of Transport that an agreed rail rate is inadequate from a cost standpoint or that it places coastal carriers at an undue or unfair disadvantage in the competition. The Minister

## APPENDIX

then consults with the board of trade and if he concludes, *prima facie*, that the national interests should be investigated, he refers the complaint to the Transport Tribunal, whose ultimate criterion is whether the agreed rate, by reason of its effect on coastwise shipping, is undesirable in the national interests.

In testifying before the last Canadian Royal Commission on agreed charges, David Blee, chief of commercial services of the British Transport Commission, stated:

... As we see this situation at home, the broad effect of these changes in the transport laws is really to turn the wheel a full circle over a period of 100 years, for it has brought the railway charge in Great Britain back to virtually the same kind of limited regulation which characterized the first Enabling acts.

In Canada there is no regulation of truck rates by the Dominion government. Some of the provinces regulate them on intraprovincial traffic. Railroad rates, of course, have long been regulated and they are and have been subject to the usual prohibitions against unreasonableness and discrimination and to the requirement of publication in tariff schedules.<sup>19</sup>

THE Canadian railroads encountered the same problems with respect to the loss of high-grade traffic to trucks as were encountered by the British and American railroads. In a Royal commission report made public on February 21st of this year, the commissioner briefly outlined the familiar process by which railroads in Canada and the United States—and in England, also—lost great segments of their traffic to the trucks. He stated<sup>20</sup> that as the bulk of the railroad traffic was carried at relatively low commodity rates, it was necessary to balance these rates by higher rates on other commodities; that to accomplish this objective the rates were based on the principle of what each type of traffic could afford to pay, rather than on the cost incurred in its movement. So long as the railroads had a monopoly of inland transportation, this rate structure was reasonably satisfactory. But then came the truckers. They were free to pick and choose their traffic and they picked and chose, naturally, the high-rated traffic.

The Canadian railroads first attempted to

cope with this loss of their traffic by the ordinary device of publishing competitive rates open to all. This did not prove satisfactory; it put no obligation on the shipper, leaving him free to go back to the trucker with the reduced rail rate as a weapon to drive down the truck charge—and so on.<sup>21</sup> As an aid to the railroads in meeting this truck competition, in 1938 Parliament passed a statute which authorized the Canadian Lines to make agreed rates.<sup>22</sup> This statute, however, imposed a great number of restrictions, among which were that the agreed charge must be approved by the Board of Transport Commissioners, that the board should not give its approval if, in its opinion, the object of the agreement could be secured by means of a competitive tariff of rates under the Railway Act, and that where the transportation is by rail from or to competitive points, the board's approval could not be obtained unless all such carriers joined in making the agreed charge. The act further contained provisions for the filing of the agreement with the board, publication of notice of application for approval, the hearing of all interested parties on the application, and the right of any shipper who believed that the agreed charge would unjustly discriminate against him to apply for a fixed charge for the transport of his goods if they were the same or similar to those covered by the agreed charge. It was also provided that the carload rate per ton or per hundred pounds for one carload should not exceed the rate for any greater number of cars. (In the United States, rates—open to all—may be published which are lower for multiple carloads than for a single carload provided certain conditions, including one of proper relationship to the single carload rate, are established.<sup>23</sup>)

THE Canadian railroads objected to these restrictive provisions and, following a Royal Commission Report in 1951, in which it was concluded against removing them, in 1954 there was appointed a second Royal commission, the one whose report I previously mentioned. Pursuant to this commission's recommendations that the procedure be simplified and shortened, the Canadian Transport Act was amended by a bill passed on July 11, 1955, which did away with the requirement of prior approval of agreed rates by the Board of Transport Commissioners



## PUBLIC UTILITIES FORTNIGHTLY

and provided that such rates shall become effective without approval twenty days after they are filed with the board.

This new act requires concurrence or consent to an agreed rate by all railroads that operate between competing points and provides that, in certain circumstances, water carriers may become parties to the agreement on the basis of differentials to be agreed upon. It continues the prohibition of lower unit rates for multiple-car shipments, provides that any other shipper than the one with whom the agreement is made, may, with the carrier's consent, become a party to the agreement by filing a notice of intent and that a shipper who believes that his business will be unjustly discriminated against may apply to the board for a similar rate under similar conditions. This last-mentioned relief is simply for the establishment of a similar charge for other shippers; it does not affect the original agreed rate.

**A**FTER an agreed rate has been in effect for three months, an association of shippers or a rail or water carrier may complain to the Minister of Transport that it is unjustly discriminatory or places complainant's business at an unfair disadvantage and if the Minister thinks that in the public interest it should be investigated, he is to refer it to the board, which may cancel or modify it. The governor in council may likewise refer a rate to the board if he deems it to be undesirable in the public interest.

Even as to ordinary competitive rates, the statutory filing provisions have been relaxed in Canada. Thus while a tariff of increased rates must be on file for thirty days before it may become effective and reduced rates for only three days, the board may allow a competitive rate to become effective "immediately upon the issue thereof before it is filed with the board..."<sup>24</sup>

Thus, in Canada, as in England, the effort is to permit railroads to meet the competition of the highway carriers by relaxing the historic duties imposed upon railroads, England having gone considerably farther in that direction than the Canadians. In this country, there has been no relaxation of the railroads' duties. They are still required to publish their rates—on thirty days' notice and subject to suspension—to avoid discrimination and undue preference and prejudice, to

obey the long- and short-haul clause, and, moreover, as construed by the Interstate Commerce Commission, they are now required to hold their rates at a level which will not, in the commission's opinion, be lower than necessary to meet their competition and which will not attract an unfair share of the traffic to the rails.<sup>25</sup>

**M**OTOR carriers in the United States have been under federal regulation since the Motor Carrier Act of 1935. The rates of the motor common carriers are subject to the requirements that they be reasonable, free of discrimination and undue prejudice, and that they be published. They are not subject to the long- and short-haul clause which the railroads must observe; otherwise they are subject to about the same restrictions as railroad rates. The schedules of contract truckers—those who carry under individual agreements with particular shippers and do not hold out to serve the public in general—need not set forth the exact rates charged, only the minimum. The minimum rates are not subject to antidiscrimination provisions. They are required not to contravene the National Transportation Policy which, among other things, looks to the preservation of the inherent advantages of each mode of transportation, the fostering of sound economic conditions in transportation, and the avoidance of unfair or destructive competitive practices. A large body of truck traffic is wholly exempt from rate regulation by reason of the exemption of trucks which carry agricultural commodities.

**W**ATER carriers are subject to no regulation if they carry not more than three bulk commodities in their vessel or tow.<sup>26</sup> This takes out from regulation the great bulk of the tonnage transported by water carriers in this country. Such common and contract water carriers as are subject to regulation, have about the same duties as I mentioned for common and contract motor carriers, except that the common carriers are subject to the long- and short-haul clause. There is a special provision<sup>27</sup> for water carriers having through routes with railroads which requires the commission to establish such differentials between all-rail rates and rail-water rates as it may find to be justified. Under this provision railroads are compelled to participate in

## APPENDIX

rail-water rates lower than their own all-rail rates between the same points even though the commission finds the cost of transportation via the all-rail route to be lower than via the water-rail route.<sup>28</sup>

As you have heard from Mr. Langdon, the recent Cabinet committee report makes recommendations designed to make it easier for railroads and other common carriers to make rates to meet their competition and to minimize interference with such efforts by the Interstate Commerce Commission. These, to date, are simply proposals. So far as federal law is concerned, it is now just as restrictive—indeed, considerably more restrictive—than when the act was passed in 1887 and obligations were imposed upon the railroads to cope with their monopolistic powers, obligations that were taken from British law and which, today, have been almost completely cast aside in Great Britain except where they are actually necessary for the protection of shippers: *i.e.*, in situations in which a shipper's traffic cannot reasonably be carried but by railroad.

I WANT to mention one other important provision of the 1953 British Statute. The railroads of the United States have complained that in the inflationary period since the end of the war, the time consumed by rate increase procedures between the point at which large wage and other cost increases have had to be paid, and the point at which

these increases could be offset by advances in rates was such that they lost huge amounts of money. British railroads had the same complaint.<sup>29</sup> The 1953 transport act provides that when such cost increases occur, the railroad rates may be increased simply by the publication of a notice to that effect in specified journals or by application to the Transport Tribunal, which is directed "to consider it as quickly as may be, *ex parte*, in private and without any publication of the application . . ."<sup>30</sup> Whichever method is followed, the increase is not to exceed 10 per cent, and is to be effective only until the Transport Tribunal shall pass on an application for permanent increases.

THROUGHOUT the history of transport legislation in this country there has been an extremely close parallel between our legislation and that of the British Parliament. If this historical parallel is to hold true now, the restrictive concepts which were imposed in this country to curb the abuses of monopoly will, sooner or later, be put aside, at least where there is substantial competition. The presence of a great number of competing railroads and other carriers makes the problem far more complex than in England. But in one way or another, the economics of the situation coupled with the national interest will inevitably bring about changes in the direction which the British have already taken.



## Footnotes

<sup>1</sup> 49 USC 1.

<sup>2</sup> 24 Stat 379.

<sup>3</sup> Beale and Wyman, *Railroad Rate Regulation*, p. 4, *et seq.*

<sup>4</sup> The provision against unjust discrimination in § 2 of the Interstate Commerce Act is modeled upon § 90 of the English Railway Clauses Consolidation Act of 1845, 8 & 9 Vict C 20, known as the "Equality Clause"; that in § 3 prohibiting undue prejudice was modeled upon the second section of the British "Act for the Better Regulation of the Traffic on Railways and Canals of July 10, 1854," 17 & 18 Vict C 31, and the eleventh section of the act of July 21, 1873, 36 & 37 Vict C 48, entitled "An Act to Make Better Provision for the Carrying into Effect of Railway and Canal Traffic Act, 1854, and for Other Purposes Connected Therewith." *Texas & P. R. Co. v. Interstate Commerce Commission* (1896) 162 US 197; *Interstate Commerce Commission v. Alabama Midland R. Co.* (1897) 168 US 144.

<sup>5</sup> *New York, N. H. & H. R. Co. v. Interstate Commerce Commission* (1906) 200 US 361.

<sup>6</sup> *Union P. R. Co. v. Goodridge* (1893) 149 US 680.

<sup>7</sup> See the Cullom Report, Senate Report No. 46, 49th Congress, p. 54, *et seq.*

<sup>8</sup> *Ibid.*

<sup>9</sup> *Id.*, at p. 42.

<sup>10</sup> Section 14, Regulation of Railways Act of 1873, 36 & 37 Vict C 48.

<sup>11</sup> 41 Stat 488.

<sup>12</sup> Testimony of David Blee, chief of commercial services, British Transport Commission, before Royal Commission on Agreed Charges (Canada, 1954), p 788.

<sup>13</sup> *In Re the Railways Act, 1921, In Re Application by The Great Western R. Co.* (1933) Law Reports 2 KBD 391.

<sup>14</sup> Road and Rail Traffic Act of 1933, 23 & 24 Geo 5 C 53, § 37.

<sup>15</sup> Transport Act, 1947, 10 & 11 Geo 6 C 49.

## PUBLIC UTILITIES FORTNIGHTLY

<sup>16</sup> 1 & 2 Eliz 2 C 13.

<sup>17</sup> In practice, the agreed charge in Great Britain seems to have taken three forms: The first is called a simple agreement. Under this, a rate is quoted to a shipper, who accepts it, but with no conditions as to quantity of shipments or anything else. The second is called a contractual agreement. When this type is used, conditions are attached to the granting of the rate; for example, the shipper would agree to give to the railway a stated amount of traffic over a given period of time, or so many cars per day or so many tons per car. The third type of agreement is called an agreement for an agreed flat rate and, under this, the shipper agrees to ship by railroad all of his traffic to the area covered by the agreement. Blee testimony, *supra*, note 12, p. 870-2.

<sup>18</sup> Report of Royal Commission on Agreed Charges, 1955 (Canada), p 35.

<sup>19</sup> Railway Act of Canada, Chap 234, Revised Statutes, 1952.

<sup>20</sup> Pages 19-20.

<sup>21</sup> Report of Royal Commission, 1955, pp 21, 22.

<sup>22</sup> Sections 32 and 33, Transport Act, Chap 271, Revised Statutes, 1952.

<sup>23</sup> Molasses from New Orleans to Peoria and Pekin (1939) 235 ICC 485.

<sup>24</sup> Railway Act, Revised Statutes, Chap 234, § 334.

<sup>25</sup> See the citations in Mr. Langdon's paper given before the section today.

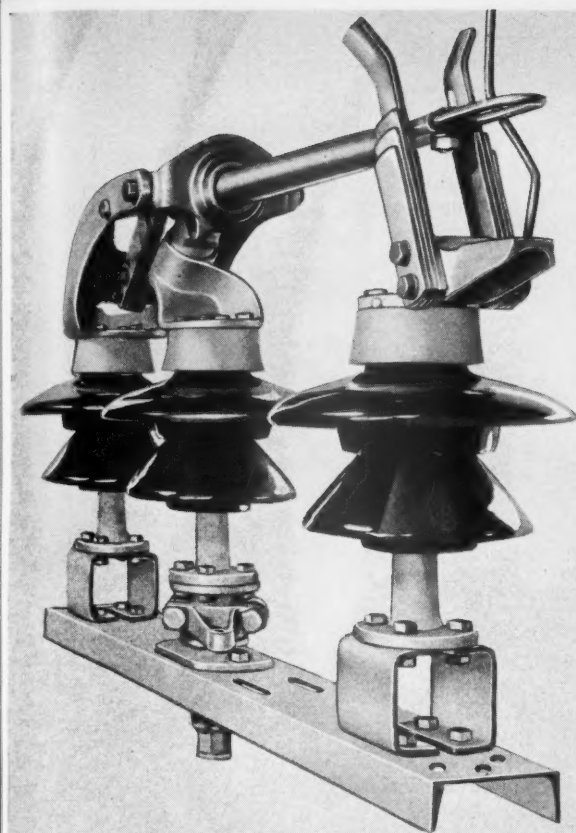
<sup>26</sup> 49 USCA 303(b).

<sup>27</sup> 49 USCA 307(d).

<sup>28</sup> Alabama G. S. R. Co. v. United States (1950) 340 US 216.

<sup>29</sup> See the testimony of Mr. Blee, *supra*, note 12, at p. 914.

<sup>30</sup> Section 23 (2).



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In the case of Delta-Star MK-40 Switches, you always can expect consistent performance, one switch to the next. The engineering and design experience, the skill and care, and the quality of Delta-Star workmanship and materials assure permanent, high performance.

Moreover, Delta-Star MK-40 Switches alone offer a combination of unbeatable advantages *originated by Delta-Star*. These switches have a minimum number of moving parts, minimum current interchange surfaces, fully controlled blade with high pressure silver-to-copper contacts at both ends. Contacts are fully visible for inspection. Contact pressure applying springs carry no current, and offer large deflection to maintain uniform high pressure contact over extended periods of wear. MK-40 Switches feature sturdiest possible construction, using large rugged sealed-type ball bearings.

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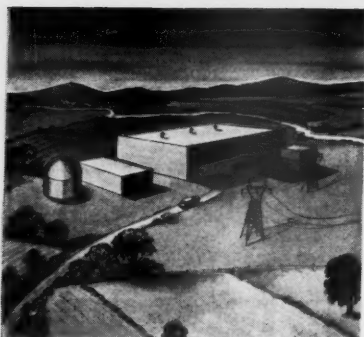
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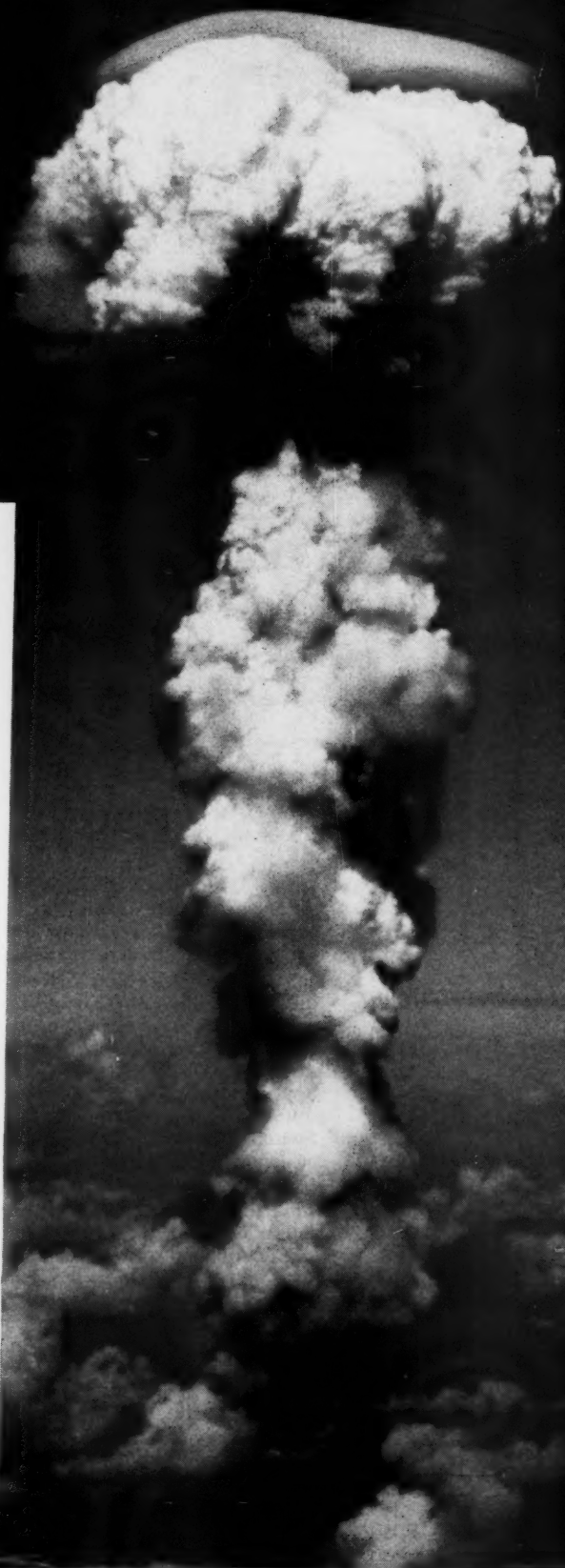
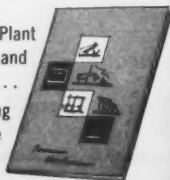
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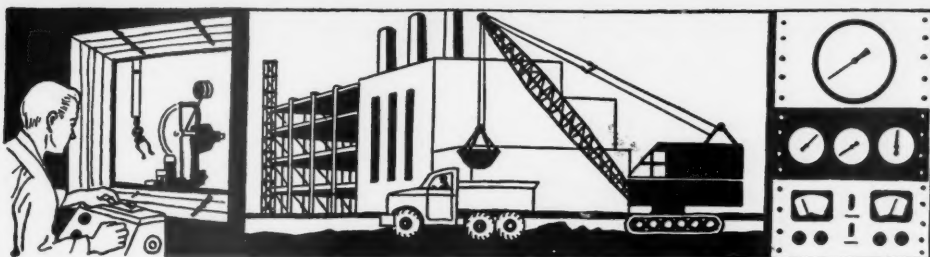
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## Industrial Progress

### Pacific Northwest Power Plans 1,446,000 KW Unit on Snake River

PACIFIC Northwest Power Company recently asked for permission to develop 1,446,000 kilowatts of new hydroelectric power on the middle Snake river.

Application for a license to build and operate major dams and power plants at Pleasant Valley and Mountain Sheep between Idaho and Oregon was filed with the Federal Power Commission by the regional generating firm organized by Washington Water Power, Pacific Power & Light, Montana Power and Portland General Electric companies.

Construction schedules call for starts at the two sites in March 1956, with first power available early in 1959.

The major new dams have been located above the mouths of the Salmon and Imnaha rivers in order not to interfere with important fish migrations.

The installations will cost \$143,700,000, with another \$66,300,000 required for transmission lines to load centers in the power-hungry Northwest.

The four private utilities that make up Pacific Northwest Power serve over 800,000 customers, representing nearly half of all power users in Oregon, Washington, northern Idaho and Montana. The firms have spent \$1,250,000 for exploration at the sites and engineering studies this year.

Kinsey M. Robinson, president of Pacific Northwest Power Company, said the Mountain Sheep and Pleasant Valley developments "constitute a closely interrelated project and provide for maximum effective operation and use of potential water resources in the public interest."

He said the project would be coordinated with operation of the Northwest power pool, "increasing its ca-

pability and resulting in benefits for customers of all pool members."

### Potomac Electric Plans to Build New Power Unit

POTOMAC Electric Power Company has received permission from Loudoun county, Virginia, officials to build a new \$70,000,000 steam electric generating station on the Potomac river.

The company said the initial building will house two 150,000 kilowatt turbine generators and related auxiliaries. The first generating unit is expected to be put in operation in the spring of 1958, with the second unit to begin operating a year later. The probable final development at the site will be four turbine generator units with a capacity of 600,000 kilowatts.

Initial construction may cost as much as \$25,000,000, with ultimate expenditures of over \$70,000,000.

### Electric Energy Production in U.S. Reaches All-time Record

PRODUCTION of energy by electric utilities reached an all time high of 503,228,956 000 kilowatt-hours—the first time that such figures have ever topped the half-trillion mark, the FPC reported in its "Production of Electric Energy in the United States" series.

The 12 month total was 1.1 per cent over the record set by the 497,963,360,000 kilowatt-hours total for the 12 months ending May 31st, and 11.0 per cent over the 453,517,681 000 kilowatt-hours total for the year ending June 30, 1954.

Energy produced by water power plants of electric utilities was 9,709,237,000 kilowatt-hours, an increase of 1.3 per cent above June, 1954 figures. As a proportion of the June total, water power output decreased from 24.6 per cent last year to 21.9 per cent this year. Production by fuel-burning

plants in June was 17.5 per cent above that for June, 1954.

Cumulative production for the first half of 1955 was 258,257,439,000 kilowatt-hours, including 58,390,057,000 kilowatt-hours by hydro plants and 199,867,382,000 kilowatt-hours by fuel-burning stations. The six-month total registered a gain of 13.9 per cent: hydro production increased 2.1 per cent and fuel 17.9 per cent over the like 1954 period.

Reports received by the FPC indicated that the installed capacity of generating plants in utility service totaled 107,617,233 kilowatts at the end of June, a net increase of 1,292,955 kilowatts during the month. The June 30th capacity indicates a gain of 12,308,260 kilowatts or 12.9 per cent from the June a year earlier.

### G-E Proposes Mass Residential Market Development Program

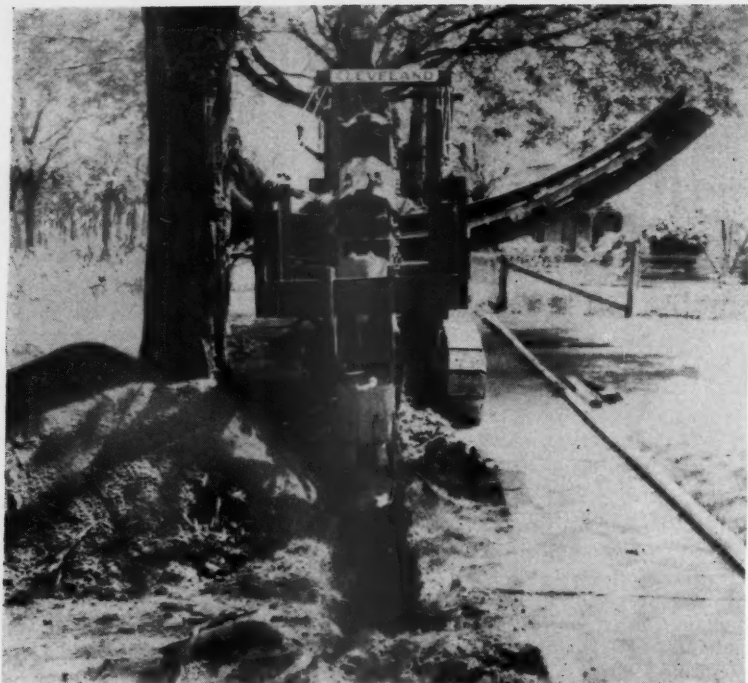
GENERAL Electric Company this month will propose to Electric Utilities a far-reaching, mass residential market development program, it was disclosed by Roy W. Johnson, executive vice president of the company.

Addressing members of the Rocky Mountain Electrical League in Moran, Wyoming, September 12th, Mr. Johnson described the program as one which he hoped could "unite the entire electrical industry in the greatest market development program ever launched."

He said General Electric stands ready to furnish a national backdrop of manpower and promotional tools to support local efforts of the Utilities.

Pointing out that the company's investment in the proposed project would be in addition to its continuing product promotion, Mr. Johnson said General Electric also would orient its multi-million dollar national consumer advertising to the overall program.

The promotion will utilize virtually  
(Continued on page 28)



## The "BABY DIGGER"...

### small enough for the tightest quarters

### ...husky enough for the toughest jobs

WISCONSIN SOUTHERN GAS CO. capitalizes on their Cleveland "Baby Digger's" compactness and maneuverability on this extension job in Lake Geneva, Wisconsin. Cleveland's quick-shift reversible conveyor made it easy to get around trees, poles and water hydrants and keep trenching operations right on schedule in spite of limited working space.

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Recognized as supreme in its field for excellence of design, materials and construction, the Cleveland "Baby Digger's" outstanding record of long-lived dependability and economical performance is attributable primarily to Cleveland's unswerving allegiance to this basic characteristic . . .

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# CLEVELAND

## INDUSTRIAL PROGRESS

### (Continued)

every means of communication including personal meetings with Utilities, motion pictures, advertisements, a variety of printed materials, and special G-E-sponsored national television programs.

No General Electric identification would appear on any of the basic promotional materials furnished by the company, Mr. Johnson said, adding that other electrical equipment manufacturers could join in providing materials for the proposed program.

Mr. Johnson said details of the proposal soon will be submitted on an individual basis to the nation's Utilities by General Electric executives.

The idea, he said, stemmed from a belief of the company's president, Ralph J. Cordiner, that a new and integrated effort is needed so that the full potential of the residential electrical market might be realized.

In discussing this market, Mr. Johnson pointed out that 93 per cent of the nation's wired homes are without dryers, 96 per cent are without dishwashers and 95 per cent are without garbage disposals. Three and a half million homes in America still do not have refrigerators and 8½ million are without electric washing machines, he added.

## Westinghouse to Build Generator For Nation's First Atomic-Electric Plant

DUQUESNE Light Company of Pittsburgh has awarded the Westinghouse Electric Corporation a \$2,500,000 contract to build the turbine-generator for the nation's first commercial atomic-powered electric generating station at Shippingport, Pa.

The announcement was made jointly by Philip A. Fleger, chairman of the board of Duquesne Light, and Gwilym A. Price, chairman of the board and president of Westinghouse.

The Shippingport project is scheduled for completion in 1957. The Westinghouse Electric Corporation, under AEC contract and supervision, is building the nuclear reactor for the plant. Duquesne Light will build the electric generating portion of the new plant and will operate the entire station.

The turbine-generator contract announcement calls for a unit with a capability of 100,000 kilowatts. The generator will be built at the Westinghouse East Pittsburgh plant while the steam turbine will be built at the company's plant in South Philadelphia.

"The specifications of the Shipping-

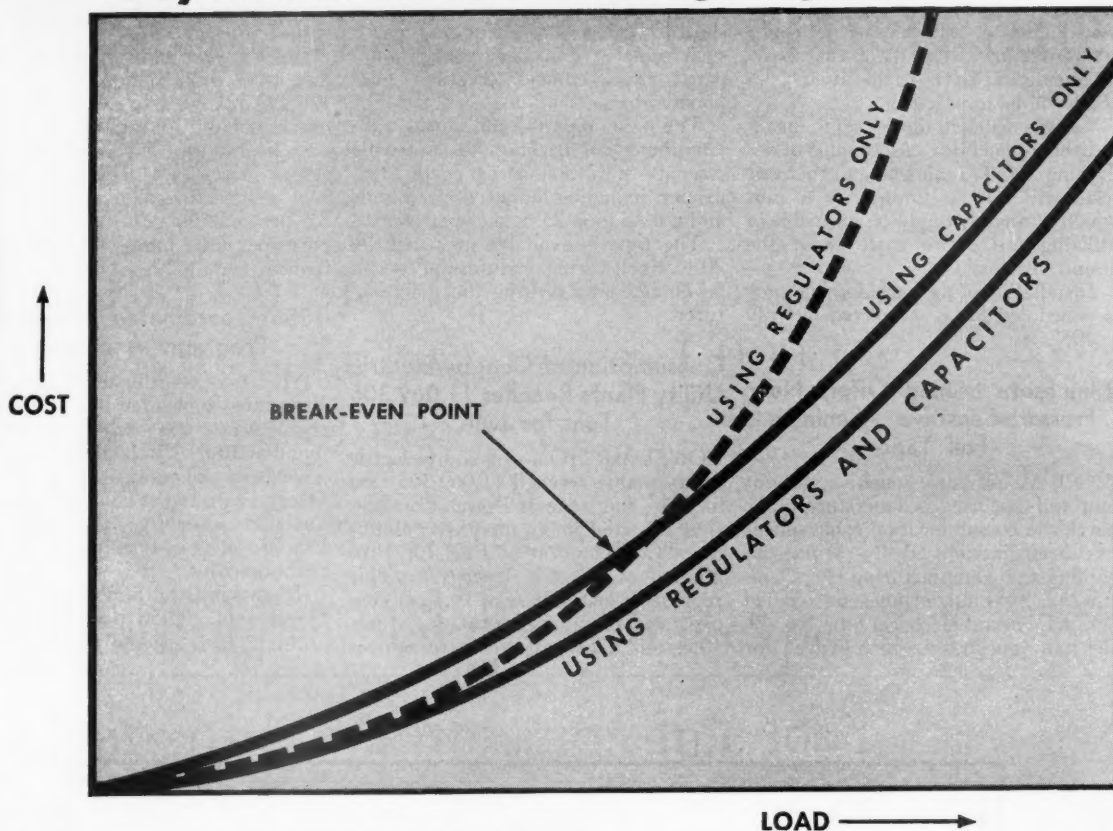
(Continued on page 30)





## OPERATION VOLTAGE REPORT NO. 3

### Key facts in the cost of voltage regulation



**Conclusion: AT ANY LOADING ....**

## **REGULATORS PLUS CAPACITORS COST LESS**

A critical examination of the functions of feeder voltage regulators and shunt capacitors reveals that each has particular benefits prescribing their use. Hence, when using these equipments together, the individual advantages complement each other to give the best voltage control and increased load capability.

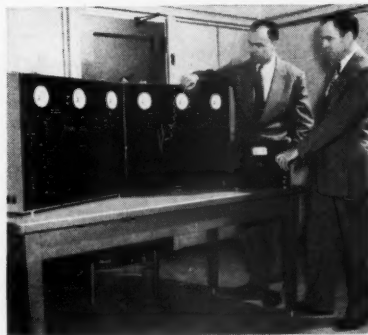
The important question then becomes, "How do the costs compare?" It can be seen in the figure above that, at light loads, the use of voltage regulators alone is more economical than capacitors alone. Conversely, at heavier loads past the "break even" point, capacitors are more economical when used exclusively. But,

at *all* loads, the combined use of these equipments represents the least expensive method of proper voltage control.

When system parameters, loadings, costs of equipment, and evaluated losses change—the result remains the same. Regulators and capacitors used together not only provide superior voltage control and greater load capability . . . but do it at less cost.

This is the third in a series of reports describing the results of a comprehensive study of voltage on feeders. For a complete discussion, contact your G-E Apparatus Sales Engineer. General Electric Co., Schenectady, N. Y.

645-3



Portable demonstrator being used by G-E Engineers R. M. Butler and D. R. Samson to show effect of capacitors and regulators under variety of feeder load conditions.

**GENERAL  ELECTRIC**



port plant call for the generation of at least 60,000 kilowatts of useful electric energy," Mr. Fleger said. "However, engineers of the government, Westinghouse, and Duquesne Light want to know what the actual heat-producing capacity of the atomic reactor will be in practice.

"It was decided, therefore, to install a turbine-generator unit capable of delivering 100,000 kilowatts so that our tests will not be limited by a unit which ultimately might be incapable of utilizing the entire capacity of the atomic reactor."

Installation of the turbine-generator is scheduled to be completed by July 1, 1957.

### Minnesota Mining Offers New Pressure-Sensitive Aluminum Foil Tape

A NEW, pressure-sensitive, aluminum foil tape used as a moisture vapor barrier in communication cable splices has been introduced by Minnesota Mining and Manufacturing Co., Dept. E5-252, St. Paul, Minnesota. Called "Scotch" brand electrical tape No. 49, the new tape has been approved for

use in REA cable splicing specifications PC-2 and PC-3.

It is recommended for use in taping operations on plastic insulated-plastic sheathed cable splices and also where such cable is spliced to conventional paper insulated-lead sheathed telephone cable.

The new tape's 3-mil, dead soft, aluminum foil backing has a tensile strength of 33 pounds per inch. Total caliper including adhesive is 5 mils and adhesion is 25 ounces per inch.

The tape is available in 2-inch by 20 foot rolls. Further information can be obtained by writing the manufacturer.

### Consumption of Coal by Electric Utility Plants Reaches 11,069,306 Tons for June

CONSUMPTION of coal by electric utility plants reached 11,069,306 tons in June, the Federal Power Commission reported in its monthly publication "Consumption of Fuel for Production of Electric Energy." This represents an increase of 19.1 per cent over consumption figures for June, 1954, and a 2.9 per cent increase over

totals for May of this year. Coal consumption during the first six months of 1955 totaled 66,572,237 tons, an increase of 17.9 per cent over the first half of 1954.

For the year ending June 30, 1955, the total consumption of fuel was 128,493,301 tons of coal, 71,418,586 barrels of oil, and 1,165,122,059,000 cubic feet of gas. These amounts represent increases of 10.1 per cent for coal and 6.7 for gas but a decrease of 3.6 per cent for oil as compared with corresponding totals for the twelve months ending May 31, 1954.

### 1956 Coordinated Promotional Programs Announced

THE 1956 Co-ordinated Promotional Programs, sponsored by Edison Electric Institute and backed by electrical manufacturers and allied industry, have been announced by O. Rodney Doerr, chairman of EET's Commercial Division Executive Committee and vice president of Pacific Gas and Electric Company.

In making the announcement Mr. Doerr said, "1956 portends to be a

(Continued on page 32)

*This advertisement appears as a matter of record only, and no public offering is being made of these Shares.*

NEW ISSUE

September 8, 1955

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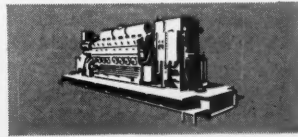
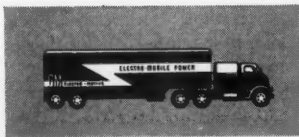
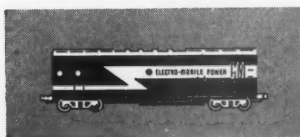
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milestone year for the sale of electric appliances and the entire industry has an important stake in helping to achieve the goal created by this large sales potential. However, since only by working together can this be done, the best way to get maximum results from our efforts is through co-ordinated action. The EEI programs and materials for the co-ordinated programs again will be available to give strong aid in the promotion and sale of electrical appliances."

Robert L. Coe, chairman of the Residential Promotion Committee and residential sales manager of Union Electric Company of Missouri, who is directly responsible for the preparation of the programs, pointed out that the utilities who have used these co-ordinated programs in the past have found them to be an excellent aid in increasing sales, and said, "with bigger and better programs than ever before 1956 sales of electrical appliances can be the largest in history."

The complete schedule is as follows: Clothes Dryer, Jan.-Feb.-Mar.; Water Heater, Mar.-Apr.-May; Range, Mar.-Apr.-May; Food Freezer, May-June-July-Aug.; Small Load Builders, May-June; Clothes Dryer, Sept.-Oct.-Nov.; Range, Sept.-Oct.-Nov.; and Small Load Builders, Oct.-Nov.-Dec.

Mr. Coe stressed the fact that the EEI programs and materials are provided only as a base upon which all interested elements in the industry can build co-ordinated campaigns. The electrical appliance manufacturers, distributors and dealers can utilize the program theme and the calendar in co-ordinating their sales promotion and sales programs to benefit from the industry-wide activity. Each local utility determines the extent of its participation and provides leadership necessary for co-ordination with the national activities of the manufacturers, national magazines and the many interested industry associations.

### Servel Field Testing Smaller, Lighter 3-ton Air Conditioner

SERVEL, INC., recently announced that 100 experimental models of a "revolutionary" new 3-ton single-coil "all-year" gas air conditioner are being placed with gas utility companies over the nation for extensive field testing.

The new unit, presently called the XFC-96-G, is a product of five years' research, development and in-plant testing. Direct fired, it provides both

heating and cooling for an entire home through a single gas-operated heat exchanger. It is approximately one-half the size and weight of Servel's present 3-ton unit. Unlike earlier 3-ton air conditioners, it requires no field assembly.

The 100 units will be placed in areas representing all climatic conditions. The gas utility firms will maintain detailed records on installation and operating costs, performance, and service requirements.

If the field tests confirm Servel's expectations, the new unit will be in production by mid-1956. When built under production-line conditions, its cost is expected to be lower than that of earlier 3-ton models.

### Dickey-Grabler Issues New Catalog

THE Dickey-Grabler Company has issued a 28-page illustrated catalog, "Metal Tags for Public Utilities," which contains descriptive data on checks, tags and plates for numbering and marking all types of properties. Allied products made by the company are listed on the back cover.

Copies of the catalog or further information may be obtained from The Dickey-Grabler Company, 10302 Madison avenue, Cleveland 2, Ohio.

### Triangle Conduit and Cable Erecting Additional Facilities

TRIANGLE Conduit and Cable Co., Inc., is adding 60,000 square feet of warehouse and manufacturing space to the present Wire Mill at New Brunswick, N. J.

Wigton-Abbott Corporation, engineers and constructors of Plainfield, N. J. are erecting the addition.

### Tatham Heads Public Utilities Division of Bache & Co.

BACHE & CO., members of the New York Stock Exchange and other leading exchanges, recently announced that Charles Tatham has joined the firm's Research Department and will be in charge of the Public Utilities Division.

Mr. Tatham, formerly vice president of Institutional Utility Service, Inc., has been a specialist in the public utilities field for twenty-three years.

He is a member of the American Finance Association and the New York Society of Security Analysts, and in 1944-45 was president of the latter or-

ganization. He is also a past vice president of the National Federation of Financial Analysts Societies.

### Harlee Branch Predicts Shortage Of Public Utility Engineers

THE expected increase in the use of electricity in the years immediately ahead threatens to create an acute manpower shortage in the ranks of public utility engineers, Harlee Branch, Jr., president of the Edison Electric Institute, declared at a round-table conference of public utility industrial relations men, held September 19th.

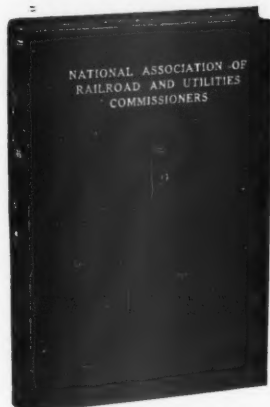
Mr. Branch, who is also president of the Georgia Power Company, predicted that America's installed generating capacity in 1965 will be 215,000,000 kilowatts, or double today's figure. Electricity sales are expected to be 850,000,000,000 kilowatt-hours, or more than twice the total for last year. These figures are expected to double again by 1975.

Mr. Branch further declared that "the great advancements in the arts of generation and transmission of electricity are the result of continuing research work by the electric industry and by the manufacturers of equipment. As we stand now at the beginning of the atomic age, it is obvious that our research activities will have to be multiplied many times over."

He pointed out that "if the technical problems are to be met and overcome, the young engineers we are hiring today are the ones who will have to solve them 20 or 30 years from now."

Mr. Branch called attention to the "alarming fact" that the number of first-class engineering students interested in going into the utility business is declining, while the industry itself is expanding. "Utility companies are suffering because there just aren't enough engineering graduates to meet the needs of business and industry as well as the professions," Mr. Branch said the challenge and romance of the utility industry have never been presented adequately to young engineering graduates. This is the fault of management rather than any shortcoming in the business itself, he said. He suggested that executives of the electric industry should more actively support the colleges and universities as a means of increasing the supply of trained manpower and also of interesting college students in public utility careers.

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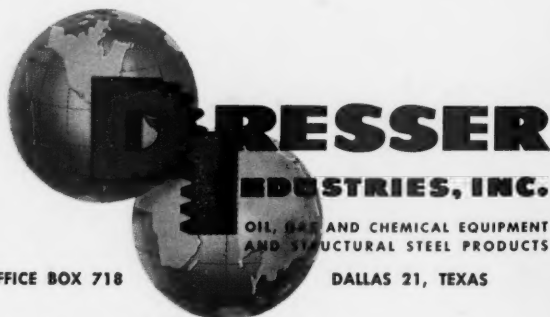
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